



## Editorial Notes.

### SALE OF POISONS AND PHARMACY ACT AMENDMENT.

ON Friday last, the House of Commons went into Committee on the Bill, and adopted the first three clauses by which the proposed *Provision of Legislation* is defined. To-night (Wednesday) the discussion will be resumed, and it is quite possible that the "Act to regulate the Sale of Poisons, and alter and amend the Pharmacy Act of 1852" may have passed safely through the ordeal of parliamentary criticism before this article is read by some of our subscribers. Every chemist and druggist who is conscious of the true dignity of his calling will rejoice at the prospect of legal protection against the degrading competition of incompetent persons, and will gratefully acknowledge the services of the men whose efforts to elevate pharmacy have culminated in the production of this comprehensive and liberal measure.

The Bill as brought from the Lords differed but slightly from the copy printed at length in our last issue. The amendments are as follows:—

To Clause 1 a sentence has been added to the effect that a pharmaceutical chemist or chemist and druggist, as defined by the Act, must "conform to such Regulations as to the keeping and selling of such Poisons [those named in Schedule A] as may be prescribed by the Pharmaceutical Society with the consent of the Privy Council."

From Clause 2 the Lords have struck out the sentence providing that resolutions respecting Poisons should be submitted to the Medical Council. The Clause as amended reads thus:—

"The several Articles named or described in the Schedule A. shall be deemed to be Poisons within the Meaning of this Act, and the Council of the Pharmaceutical Society of Great Britain (hereinafter referred to the Pharmaceutical Society) may from time to time, by Resolution, declare that any Article in such Resolution named ought to be deemed a Poison within the Meaning of this Act; and thereupon the said Society shall submit the same for the Approval of the Privy Council, and if such Approval shall be given, then such Resolution and Approval shall be advertised in the *London Gazette*, and on the expiration of one month from such advertisement, the Article named in such Resolution shall be deemed to be a Poison within the meaning of this Act."

In Clause 6, the concluding sentence has been altered so as to give the Privy Council control over the examinations. According to the amended clause,

"No Person shall conduct any Examination for the purposes of this Act until his Appointment has been approved by the Privy Council; and such Appointment and Approval shall not in any case be in force for more than Five Years; moreover it shall be the Duty of the said Pharmaceutical Society to allow any Officer appointed by the said Privy Council to be present during the Progress of any Examination held for the Purposes of this Act."

To Clause 15 the Lords have added the saving provision that "nothing in this Act contained shall prevent any Person from being liable to any other Penalty, Damages, or Punishment to which he would have been subject if this Act had not passed."

From Clause 16, the words "or photography" are omitted as unnecessary, photography being regarded as a manufacture.

Two new Clauses are inserted at the end of the Bill, defining the acts and powers of the Privy Council. These are as follows:—

"The Seventh Section of the Public Health Act, 1858, shall apply to all Proceedings and Acts of the Privy Council herein authorised."

"The Privy Council may direct the Name of any Person who is convicted of any Offence against this Act, which, in their opinion, renders him unfit to be on the Register under this Act, to be erased from such Register; and it shall be the duty of the Registrar to erase the same accordingly."

These amendments have not limited the scope, or altered the spirit of the Bill. An attempt was made to introduce a Clause providing that poisonous liquids should be dispensed in bottles of a peculiar form, but we are glad that the Lords admitted the futility of such a provision. In the words of a witty member of the legislature, they refused to "pass the bottle."

The Bill came before the House of Commons on Friday night at a late hour, and was opposed by Mr. LOWE, who hoped that it would not be proceeded with. Mr. HEADLAM, however, said he felt bound to go on with it, and the House accordingly went into committee.

On the first clause, which provides that persons selling or compounding poisons, or assuming the title of chemist and druggist, shall be duly qualified, Mr. LOWE proposed an amendment, to make registration under the Act compulsory, instead of optional, as regards persons now carrying on business. Mr. BRUCE supported the amendment, but Mr. HEADLAM objected to it, on the ground that the chemists and druggists had been assured that registration was to be optional. The House, however, decided that registration should be compulsory.

We believe that the great majority of chemists now in business will be satisfied with this amendment, as it is only by registration that they can secure proper recognition. The proposal to make registration optional did not emanate from the chemists and druggists, but from a select committee of the House of Commons.

Mr. LOWE afterwards proposed the omission of certain words, so that the Privy Council, and not the Pharmaceutical Society, would be left to decide on matters of detail in carrying out the provisions of the Act. The committee divided on this amendment, which was rejected by a majority of twenty-four—twenty-five voting for it, and forty-nine against it.

The Clause was then agreed to.

On Clause 2, Mr. LOWE moved the omission of certain words, with a view to the insertion of the following sentence:—"It shall be lawful for the Privy Council, from time to time, as it may see fit, to order that other articles (being drugs or compounds of drugs which may be dangerous to life) shall be poisonous within the meaning of this Act, and every such order of the Privy Council shall be published."

Mr. HEADLAM trusted that the amendment would not be pressed, as it was virtually the same as that which had been just decided.

After a short discussion, the amendment was negatived without a division, and the clause was then agreed to.

Clause 3 was adopted, after some trifling verbal alterations had been made, and at about a quarter past two, the Chairman was ordered to report progress.

We must now call attention to a proposed amendment of Clause 20, which the Council of the Pharmaceutical Society intend to submit to Parliament. An objection having been raised to the proposed limitation of the number of country members of the Council, the subject of the constitution of the Executive body has been discussed, and it is now pro-



posed that the sentence relating to country members shall be erased. We believe that the sole object of the proposed limitation of the number of country members was to secure an adequate working body in London, and we trust that members of the Society residing in the country will never admit that their interests are not represented by the members of the Council who reside in London.

In our next we hope to announce that from and after the 31st of December, 1868, the title of chemist and druggist will imply proper qualifications, and ensure to those entitled to use it the confidence of the public.

In another portion of our journal we print, without comment, a number of letters relating to the recent proceedings of the United Society of Chemists and Druggists.

#### OUR CONTEMPORARIES ON THE SALE OF POISONS.

THE following article from the *Express* of the 29th ult., will be perused with satisfaction by dispensing chemists:—

"We have already explained the character of the bill to regulate the sale of poisons and extend the Pharmacy Act of 1862, which has passed the House of Lords, and which is now before the House of Commons. Its promoters seek to protect the lives of the public by improving the qualifications of the druggist. But an attempt was made in the House of Lords to introduce a clause enforcing the use of a bottle of peculiar form for various poisons mentioned in the schedule of the bill, and there is still some agitation in favour of the plan. We think the idea a foolish one. Why should peculiar, say three-sided or triangular, bottles alone be used; Why not triangular pots, jars, drawers, cupboards, casks, bags, and boxes? Why not pyramidal opium pills and triangular pestles and mortars? A man was once killed through swallowing saltpetre in mistake for Epsom salts, an accident which would probably have been prevented had the druggist taken the article from a triangular compartment and wrapped it as a three-cornered parcel; but is every tradesman who deals in saltpetre to be put to endless trouble and inconvenience to avoid the possible consequences of such a case of carelessness? Then how shall we define the substances for which these vessels are to be employed? What is a poison? Powerful poisons are excellent medicines in small quantities, and most medicines become poisonous when taken in large quantities, therefore poison relates to quantity rather than material. The quantity which is poison to a child may be medicine to a man or poison to the same man under different circumstances. So that for the broad purposes of legislation the compounds for which poison-vessels are to be constructed cannot be defined. Nor would a schedule of substances to be deemed poisons for the purposes of the proposed triangular pot-and-bottle clause remove the difficulty. The exigencies of trade require that some of the worst poisons should be omitted from such a schedule. Hence a dangerous lotion would often be placed in the safety-bottle and a harmless medicine in a danger-bottle. The angularity of a vessel would not, moreover, prevent a druggist, his porter, a servant, a nurse, or a patient, from mistaking a bottle containing a weak poison from one containing strong, or a poisonous quantity being swallowed instead of a proper dose. As a general rule, we believe that invalids would rather not know that the draughts they are taking include what is conventionally termed poison. It is also undesirable that every evil-disposed person that may be attached to a household should be reminded

by the shape of a bottle that something dangerous to health, if not life, is always at hand. To propose that the shape or surface of a bottle should preserve us from the consequences of not reading a label, is to propose that the sense of touch should supersede that of sight. To supplement, if not override, common sense and the faculties of observation and reflection by mechanical contrivances of questionable merit, is a principle at once retrogressive and mischievous."

Our medical contemporary the *Lancet* thus comments upon the Bill before Parliament:—

"The principles of the new Poisons Bill which has passed the House of Lords is different from that which has generally been thought most likely to receive the approval of the Legislature. It has hitherto been imagined by many that some compulsory measure in regard to the keeping of all the more powerful, or the especially dangerous, medicines, would be the best means to guard against accident. The promoters of the new Bill, however, have gone upon the assumption that it is much better to rely upon enhanced intelligence on the part of dispensers as a whole. They have sought to debar persons from handling dangerous drugs until they have passed through such an ordeal as shall guarantee their being properly educated in pharmacy generally, and therefore presumably possessed of those qualities of care and forethought which are secured by scientific training. It was not until Government recognised this principle, indeed, that the commencement of a satisfactory solution of the matter was possible. At the same time, whilst we allow that at length a most proper course has been taken, we wish that the special value and general importance of incidental securities against mistakes may not be lost sight of. The adoption of some pretty uniform system in regard to the keeping and dispensing of dangerous remedies may be attended with some difficulty or inconvenience; but this must not be allowed to override considerations of public safety. Under one of the clauses in the new Bill, power is given to the Pharmaceutical Society, with the countenance of the Privy Council, to make such minor rules and arrangements as shall seem desirable to defeat the likelihood of accident. We therefore hope that the Society will set to work to bring about a general agreement amongst druggists as to the best mode of storing, keeping, and dispensing of poisons; and we are sure that the profession will readily adopt any satisfactory plan. We may say a word on one or two points. A greater distinction can be made between the bottle which contains the medicine 'to be taken,' and that to be 'used externally.' In some measure this is effected; but it should be possible to attain to almost entire uniformity. We think the general use of the slipper bottle for embrocations, for example, would be a good step. Even in the dark, accident would be prevented by the shape of a bottle. Then, again, with regard to the keeping of drugs in dispensaries. Amongst the better class of chemists, poisons are placed often under lock and key, in a separate case or part of the dispensary; and we think that this might be more generally done. It has been found that when poisons are isolated, attention is taken from the label; the mere keeping of the poison in a special spot is apt to be regarded as a great safeguard in itself, and dispensers are not so careful as they should be in referring to the name on the bottle. Inattention to the label has led to the confusion of strychnine and morphia, for instance. No doubt this is true, but there is not the slightest excuse for the neglect, which furnishes no argument against the isolation of poisons, as has been suggested. The fact of the isolation should only act as a stimulus to the exercise of additional caution in dispensing. However, the onus of preventing mistakes is now thrown upon the Pharmaceutical Society, and we



hope that it will do its best to devise some uniform plan of procedure especially, by which the distinction in kind of medicine as dispensed may be clearly marked; such, for instance, as the use of the 'drop' bottle, by which the attention of the dispenser or patient may be sharply called to the fact whenever he handles a poisonous or an exceptionally powerful drug. Whilst we approve, therefore, of the principle of the Bill, we attach great importance to what may be termed minor considerations."

## Report

### ON THE CONDITION AND PRACTICES OF THE VARIOUS CLASSES CONNECTED WITH The Drug Trade.

#### IV.—THE BLACK SHEEP OF THE FLOCK—(Continued). ADULTERATIONS.

THE article on the above subject that appeared in the CHEMIST AND DRUGGIST of June 15, has been the means of bringing us a perfect shower of communications from all parts of the country, from which it appears that the disgraceful practice of underselling is much more widely spread than we had anticipated. We could not publish a quarter of the cases about which we have received information, nor indeed do we care to do so, seeing that they are all pretty similar to that mentioned in our last article. One of them, however, perhaps deserves a passing notice, and that is of a brilliant ornament to the profession who hails from Stroud, Gloucestershire, and who has the cool effrontery to offer patent medicines for sale at tenpence halfpenny! Have the proprietors of patent medicines any power to stop this kind of thing? If they have, it really becomes their duty to exert it in defence of those members of the trade who sell at the proper price, and carry on their business in a straightforward manner.

We have also received several communications on the subject of nostrums with pseudo-scientific names, but we cannot use them for fear of being too personal. Our correspondent calls attention to a certain healing powder, rejoicing in a sham Greek name, of which the proprietors have the coolness to publish the analysis. From the components given it appears to consist of fuller's earth or some similar substance, mixed with its own weight of starch. This mixture the proprietors have the audacity to offer at no less than six shillings a pound!

We have yet to speak of the worst specimen of the blacker portion of our fold—we mean the wholesale manufacturer who makes or sells adulterated drugs or chemicals. Heaven knows, the crime of adulterating our daily food and drink is shameful enough, but one would require a power of vituperation equal to that of Mr. Swinburne to describe as he deserves to be described, the murderous swindler who sells impure or weakened preparations. The epithet "murderous" may, perhaps, appear to be a little harsh and uncalled for, but a few moments' consideration will show that the expression is justly chosen.

Amongst the almost numberless medicaments which enter into every day use, there are none of greater importance than those of which quinine forms the principal component. There are few of us who at some time or other have not experienced its curative effects in our own persons, and many of us have had dear friends snatched from the jaws of death through the timely exhibition of this precious alkaloid. In the tropics, notably in the East and West Indies and on the pestilential shores of Western Africa, quinine

may be said to be the daily bread of the European in time of health, and his only hope when struck down by fever; and as a writer in this journal has aptly observed, our tropical colonies would be nothing but European graveyards were it not for this invaluable febrifuge. Seeing, then, that a dose of quinine administered at the proper time makes all the difference between life and death, we unhesitatingly affirm that the wilful weakening of quinine preparations for the sake of gain is simply murderous, and will bear no manner of comparison with the fault of the grocer who sands his sugar or the publican who waters his beer. The delinquent in the one case is simply a petty swindler; in the other he can only be classed with the ruffians who place sleepers on railway lines, or those unhappy wretches who show false lights to ships at sea. The researches of Mr. J. C. Braithwaite on the percentage of alkaloid found in various samples of citrate of iron and quinine have revealed the disgraceful fact, that out of some twenty different samples only one was up to the proper strength. One sample from a ship's medicine chest, contained only a trace of alkaloid. May we ask how many of the unfortunate vessel's crew had succumbed to fever through taking this wickedly diluted preparation, and whether the rascal who made it was not guilty of these men's deaths in the sight of the Great Judge?

The British Pharmaceutical Conference has done good service in exposing several cases of flagrant adulteration, and our readers are undoubtedly familiar with the interesting papers on this subject that have appeared from time to time in the pages of the *Pharmaceutical Journal*. But although the practice has received severe treatment at the hands of some of our leading pharmacutists, we regret to be obliged to assert that but very little improvement in the purity of drugs has been the result. The statements have generally excited great interest at the time, and the names of the delinquents have been mentioned to a select few, but from all we hear the practice is just as rife as ever.

It is a somewhat delicate matter to propose a remedy for this lamentable state of things. It is of course a most invidious task to have to assert that a certain preparation made by a well-known firm is most shamefully adulterated, but still we think that some of the gentlemen who have undertaken the task of detectives over our manufacturers ought to summon up courage enough to name the culpable firms. A medical friend of the writer has made a suggestion that we cannot help thinking is a very valuable one, and that is that a standing committee of the members of the Pharmaceutical Conference should be formed for the special purpose of analysing suspected articles, and that the names of the guilty parties should be published in full in the pages of their transactions. If this were done in the more glaring instances—and we regret to say there are only too many to choose from—we think it would have a very salutary effect.

The proper remedy of course would be for every pharmacist to test his own preparations before they were received into stock, and to close the account of any firm supplying him with an inferior or adulterated article. In only too many instances we fear that the very slight amount of chemical knowledge and skill necessary for this purpose is wanting. The coming men, however, will be in a very different position, for we are informed that all good teachers of pharmacy very wisely make the testing of preparations an important part of their course. The manipulations connected with those operations are extremely simple, and in numerous cases we have no doubt that the volumetric method of testing could be applied with great facility. In point of fact, after a very slight amount of practice the testing of drugs ought to form as much a part of the phar-



apothecary's every day work as the checking of invoices. The publican will not receive brandy or gin into his stock without testing its quality with pulsat and hydrometer; why then should the pharmacist allow himself to be mulcted right and left by dishonest manufacturers simply from neglecting this very necessary part of his business?

Medical men are continually complaining of not being able to procure proper medicaments for their patients,—indeed the custom of carrying a little portable dispensary in the carriage is becoming more and more common every day, and from the numerous cases of bad drugs that have come under our notice we really cannot wonder at the doctors acting in self-defence. If once manufacturers knew that their preparations were rigidly subjected to analysis, and that an adulterated article meant the closing of a good account, we should hear very little more of white precipitate containing half its weight of white lead, or of calamine composed of sulphate of baryta and peroxide of iron. To conclude this portion of our subject, we say, let the honest pharmacist exercise greater vigilance over his manufacturers. If he is ignorant of the best tests, let him apply to such men as Matthews or Braithwaite for a few lessons in this branch of science, and we will guarantee that he will soon receive many times the amount he has paid for the necessary instruction, besides feeling the satisfaction of doing business on honest and gentlemanly principles. It does seem singular that the pharmacist who, as a sharp man of business, would refuse a bad looking parcel of opium or rhubarb should allow citrate of iron and quinine containing 3 per cent. of alkaloid instead of 25 per cent. to pass muster. We have determined, from facts that have lately come to our notice, to do all we can in the way of putting down adulteration, and we solicit our readers to let us know of every case that comes within their experience. On our part we shall treat all such information in a confidential manner, and shall be only too glad to assist our friends in turn by supplying them with the best methods of testing in each particular instance.

We have now considered and described the worst of our dark brethren; there are many, however, who remain unnoticed, but most of these are only of a pretty decided whitey-brown, so we will leave them to their own consciences. One specimen that we came across the other day has, fortunately, but few companions, and that is the pharmacist who is either so ignorant, or so conceited, that he alters the physician's prescription to suit his own convenience or theories. In one case a prescription was sent to a country chemist to be made up. It contained nothing but podophyllin and some ordinary pill mass. The pills were sent home, and the patient passed a night of agony and danger. Next day the physician called in the chemist who had dispensed it, and, by means of a little judicious threatening, succeeded in extracting from him the confession, that being out of podophyllin, he had used calomel. The lady to whom the pills were given had a constitutional antipathy to mercury, and nearly lost her life through the chemist's culpable laziness. In another instance, for a similar reason, a chemist substituted tincture of cardamoms for tincture of bark, and a third coolly left the principal ingredient—acetate of morphine—out of a prescription. Such instances as these are we hope rare, for, happily, as far as correct dispensing goes, but little complaint has ever reached our ears.

Of course it is sometimes a difficult thing to know how to act for the best. A prescription may come in that is full of incompatibles, or that contains an obvious error. To dispense it is simply impossible or dangerous, to alter it is to assume a very serious responsibility, and to send it back to

the prescriber may often offend a valuable friend. A short time since a West End physician, who had a commission arrangement with a pharmacist in the neighbourhood, wrote a prescription for a suppository, which, when made up, appeared in the form of a thin cream. The pharmacist was puzzled. Like Mr. Gladstone he had three courses open to him—to dispense the prescription as written down, and incur the displeasure of the patient and the disgrace of being called an ignoramus, to insert the omitted ingredient, which was a perfectly harmless one, or to write to the prescriber, calling his attention to the blunder. The latter was, naturally, the proper course to take, but the connexion was large, the commission was small, and the physician was well known as one of the most cross-grained members of the profession. The chemist wavered for some time, but at last honesty triumphed, and the head assistant was despatched in a cab to the physician's residence with a polite note, requesting his advice how to proceed. The only answer was a curt one to the effect that he would call next day. He did so, gave the honest pharmacist a severe personal rating for not minding his own business, and withdrew his account. Whether, under the circumstances, he would have been justified in altering the prescription, is a point of ethics that we must leave to gentlemen with as fine a sense of personal honour as our friend Mr. Joseph Ince.

So far the black-sheep of the flock, with whom, no doubt, in common with our readers, we are but too pleased to part company.

We trust the future is not far distant when the two principal causes of disgrace to the profession will be removed—we mean underselling and adulteration. As for those gentlemen who throw a false glamour of science over more or less innocent preparations, we only fear that they will last as long as pharmacy itself, but when once Parliament confers on the pharmacist his proper status, he will then be able to assume a position in the eyes of the public that will speedily give low prices their *coup de grace*. On the other hand, the facilities for obtaining a proper pharmaceutical education are so increased, that the knowledge and skill necessary to discover adulterations will be within every one's reach, and will be used as commonly as the eyes, nose, mouth, and fingers are now to detect sophistications. As far as these two blots on the face of pharmacy go, we may all say, with the utmost confidence, "*Speramus meliora*."

#### QUACKS AND THEIR NOSTRUMS.

FROM the Far West we receive a copy of an address\* which forms an admirable appendix to our recent report on the practices of the London quacks. This address was delivered in May by Dr. Whitney, the President of the San Francisco Medical Society. Having classified Doctors, as grammarians have classified verbs, into "regular, irregular, and defective," he defines each group with philosophic precision.

The "regular" Doctors are those who have respected time-honoured custom by devoting years to the study of medicine, and have submitted to such proper tests of their abilities as due regard for the common good in every enlightened nation has rendered obligatory; who in their deportment observe rules which wise men of the profession have embodied into a code for the guidance of all who "seek noble ends by noble means;" who will not, in the maintenance of their own rights, willingly infringe the rights of others.

The "irregular" are such as, having studied medicine, and perhaps graduated with honours, have become so lost to every sense of professional propriety, as to proclaim themselves champions of some exclusive idea, to the disparage-



ment of the regular profession, in the minds of those who are incapable of judging of the truth or falsity of systems of medicine. Such individuals use the title of "doctor" to secure the confidence of intelligent and honest people, whilst they prove recreant to all the moral obligations they are under to maintain the honour and dignity of the doctorate.

The "defective" are those who never had any claim to recognition by the profession. With that effrontery which is engendered by ignorance, they offer advice and promise a cure of any case in the long catalogue of diseases. Among these are the unprincipled schemers whose fulsome advertisements darken the columns of so many newspapers, rendering them unfit for distribution, and not unfrequently fit productions for the notice of those whose duty it should be to enforce the law for the suppression of obscure publications.

In illustration of the pretensions of defective medical practitioners Dr. Whitney refers to a case at law which came under his notice more than thirty years ago. An action was brought by the proprietors of the patent for the "Vegetable Hygeian Pills" against one Palmer, whom they charged with having damaged their business by the manufacture and sale of a spurious article. It appeared in evidence that the proprietors had been so prosperous in England as to establish in London an institution by them grandiloquently christened "The British College of Health," at an enormous expense, from which they had sent agents into the principal cities of Europe and America; that their sales had been so large in the latter country alone as to amount in a single year to the sum of three hundred thousand dollars; and even that this alleged pedlar of spurious pills had sold a hundred thousand boxes before he was arrested. It was also shown that this "college" had neither charter, professors, nor students, but consisted of a large building with the apparatus for putting up these pills; also, that the proprietors were neither physicians, surgeons, nor even men of education, but mere ignorant, boasting quacks. These pills, like others similarly advertised be it remembered, were recommended to cure, and certified to have cured, a long list of frightful diseases; but it was proved that they consisted only of aloes, cream of tartar, and gamboge.

Were like investigation made, says our critic, of the claims of a large majority of advertised nostrums or advertising quacks, they would share a like fate; and the sufferers who are now deluded into the folly of wasting time and money upon them, instead of seeking early investigation of their cases at the hands of those who devote their lives to these objects, would be greatly benefited thereby.

#### MODERN CHEMISTRY.\*

I'm all in a flutter; I scarcely dare utter  
The words I have set to a jingle;  
For I see at this table philosophers able,  
Whose ears at my verses will tingle.  
Still, I don't mind confessing, I'm fond of expressing  
My notions and thoughts, in defiance  
Of every great gun who can't see the fun  
Of winnowing chaff out of science.

I've read till I'm weary books weighty and dreary  
In which certain chemists seem aiming  
To prove to outsiders they're excellent riders  
Of hobbies in theory and naming.  
With "monads" and "diads," and "pentads" and "triads,"  
My brain has been addled completely;  
And what's really meant by "something-valent,"  
Is a question I give up discreetly,

Though Frankland's notation commands admiration,  
As something exceedingly clever,  
And Mr. Kay Shuttleworth praises its subtle worth,  
I give it up sadly for ever;  
Its brackets and braces, and dashes and spaces,  
And letters decreased and augmented  
Are grimly suggestive of lunes to make restivo  
A chemical printer demented.

\* Communicated to a convivial meeting of chemical philosophers by a presumptuous visitor.

I've tried hard, but vainly, to realise plainly  
Those bonds of atomic connexion,  
Which Crum Brown's clear vision discerns with precision  
Projecting in every direction.  
In fine, I'm confounded with doctrines expounded  
By writers on chemical statics,  
Whom jokers unruly may designate truly  
As modern atomic fanatics.

I turn for instruction to Brodie's production,  
But stick at the famous equations  
Which make chlorino fare as "alpha ki square,"  
Or the product of three operations.  
It may be the case that the "unit of space"  
Requires symbolic expression;  
But I cannot extract any notions exact  
From Sir Benjamin's daring aggression.

For years I received the doctrines believed  
About acids with much satisfaction,  
And constantly swore  $H_2SO_4$   
Was an acid above all detraction;  
But Williamson's views my notions confuse,  
And make me once more undecided  
Whether old  $SO_3$  the acid should be,  
Or merely a fragment divided.

When Odling with unction dilates on a function,  
I sink out of sheer inanition;  
For I find his "aplonos" and "diamerones"  
Indigestible mental nutrition.  
In fact I am dazed with the systems upraised  
By each master of chemical knowledge,  
Who seems to suppose that truth only grows  
In the shadow of one little college.

#### MICROSCOPIC WORKERS CONNECTED WITH PHARMACY.

IN concluding an elaborate historical paper on the Royal Microscopical Society, Mr. JOSEPH INCE refers to the labours of some eminent microscopists who are connected with our trade. Sharing the author's desire to extend the list of pharmaceutical workers with the microscope, we reprint the passage with its interesting notes:—

"The microscope" (said Dr. Chalmers) "has redeemed the insignificance of the earth, for it tells that in the leaves of every forest, and in the flowers of every garden, and in the waters of every rivulet there are worlds teeming with life and numberless as are the glories of the Firmament."

"The time is past" (said Owen, 1841) "when the utility or the dignity of such pursuits can be affected by a sneer at the littleness of their objects, as they seem little in the eyes of the indifferent and ignorant. The telescope teaches us that our world is but an atom; and none know better than microscopical observers, that every atom is a world."

No man can work with the microscope in cold blood, not even when engaged in ordinary investigations; but let a diatom ensnare him, and he may relinquish hope; for this strange instrument holds the key which unlocks the secrets of external Nature, and is hence the common gain of all inquirers after physical truth.

Nor need we wonder at the fascination, when we consider what the microscope, with its visual analysis, can reveal: by its aid the brisk manufacturer may learn how to increase the profit of his till, while the profoundest philosopher may lose himself in the loftiest speculations; and if with this new eye we may see marvels in the so-called commonest objects, what must be the delight of him who leaving the earth beneath explores the mysteries of the waters under. These men, like those who go down to the sea in ships and do business in great waters, see the works of the Lord and his wonders in the deep.

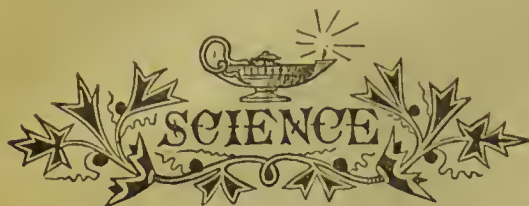
To those of our own calling, laborious chemists and druggists, these remarks are most earnestly commended. Already no number amongst us some microscopic workers. Deane\* of Clapham, cui nomen apud nos semper est in honorem,

\* Xanthidia and Polythalamia (foraminifera) found in the grey chalk between Folkestone and Dover. (Oct. 15, 1845.)

On the first discovery of Xanthidia in flint, so great was the anxiety to obtain specimens that several tons of flints were broken up in order to



Brady\* of Newcastle, Schacht of Clifton, Stoddart of Bristol, Clift of Lewisham, Tylee of Bath, Martin of Redland, Waddington, and many others, not forgetting one who, though a dispensing chemist in a cathedral city, is not unfavourably known to the Rev. J. B. Reade. Let me try, not without strong hope, to extend the list. King's College, London, is the present home of the Royal Microscopical Society.



### PROGRESS OF CHEMISTRY DURING THE PAST YEAR.

IN his anniversary address to the Fellows of the Chemical Society, the President, Dr. WARREN DE LA RUE, F.R.S., gave the following interesting sketch of the chemical work of the past year:—

“Without pretending to give an account of the extraordinary activity in chemical investigation, and the important additions made to the science of chemistry since you were last addressed from this chair, I may, nevertheless, bring briefly to your recollection some of the most important work which has been accomplished during the past year.

“Although organic chemistry still receives the larger share of attention, inorganic chemistry has, nevertheless, latterly gained in popularity, and bids fair to gather a continually increasing number of votaries. In purely theoretical chemistry, the appearance of Sir Benjamin Brodie's chemical calculus has given a new impulse to abstract speculation on a subject which goes to the very foundation of the true philosophy of our science. Whatever may be the ultimate verdict of chemists with respect to the views propounded by Sir Benjamin, it cannot be disputed that the publication of his monograph will have initiated a most valuable and suggestive discussion.

“On account of its important bearing on the physics of chemistry, I will recall, in the first instance, the remarkable results obtained by Professor Graham, in the pursuance of his researches on dialysis. You will remember that MM. Deville and Troost had observed the permeability of platinum and iron to hydrogen at a high temperature; also that Professor Graham had pointed out the power which a septum of india-rubber possesses in separating gases. Following up this train of thought, he has been more recently induced to study the action of metallic septa at different temperatures, and has found that the permeability is different for different gases, and that even an approximate separation of gases mixed together can be effected by this means. The extraordinary power of condensation and occlusion of some gases, possessed by several metals, among

which palladium is so especially distinguished, may be regarded as one of the most striking phenomena which have been brought under the notice of chemists.

“Messrs. Frankland and Duppa, in continuation of their researches in synthetical chemistry, have given a very important contribution to the long list of new bodies with which the method used by themselves and Geuther, had already enriched chemistry, and which by the light they throw upon isomerism, are justly deserving of the high appreciation of chemists.

“In the same direction may be cited the results of the important researches of Fittig, and his associates, on the synthesis of the aromatic hydrocarbons, which have been considerably augmented during the last year.

“The transformation of aromatic monamines into acids richer by one increment of carbon, effected by Hofmann, by subjecting the monamine to distillation in the presence of oxalic acid, whereby a certain portion of the corresponding nitrile is obtained, constitutes a valuable method for preparing certain aromatic acids which until now existed only in theory. The discovery by Hofmann of a new series of isomers of the hydro-cyanogen series, also promises to afford a fertile field of chemical research.

“Passing on to another branch of synthesis, it is gratifying to notice, that the number of instances of the artificial production of organic substances, formerly known only as products of organised life, is also steadily on the increase. Perkin, during his researches on hydride of salicyl, has effected the artificial formation of coumarin, whereby the exact association of this interesting substance with the salicylic series has been established.

“Liebreich, some years ago, discovered an interesting organic base, neurine, a direct derivative of protagon, a constituent of brain. Baeyer has since shown that this substance has the composition and constitution of hydrate of oxethyl-trimethyl ammonium, thereby suggesting the possibility of the synthetical production of neurine. Wurtz has quite recently carried the suggestion into effect, and has actually produced this complex organic body by artificial means. I cannot pretend to assert that our modern theory of chemistry is not destined to be substituted by other hypotheses, but I think the artificial production of so complex a substance as neurine may be adduced as evidence of our being able to form a good working theory, and of the general soundness of modern chemical reasoning.

“Urea, the artificial production of which furnished the first proof of the identity of chemical and vital action, has been quite recently produced by a new process, which, like so many other processes of Kolbe, startles us by its simplicity and boldness. Finally, in drawing attention to the synthetical production of oxalic acid carried out by Drechsel, in Kolbe's laboratory, I conclude the list of recent additions to the number of artificially produced substances—results which must always be regarded as triumphs of mind over matter.

“In physiology, it will suffice to record here the recent unlooked for results obtained by Pettenkofer and Voit, in their experiments with the celebrated respiration apparatus at Munich, by which it appears that during sleep animals store up oxygen, a fact which seems to throw important light on the functions of sleep.

“Friedel and Ladenberg, by the discovery of the silicium-mercaptop, have brought more prominently to light the chemical resemblance of carbon and silicium.

“The recent researches on gun-cotton by Abel, have completed the chemical history of this remarkable substance an instalment of which was given by him in his former memoir on the subject. He has now cleared away all doubts

and them; but Mr. Deane obtained them from the chalk containing no flint nodules. In one piece of a greyish kind of chalk no less than six species were found by treating it with hydrochloric acid. They were accompanied by Polythalamia and the remains of other organised bodies called Rotalia—he proved that the Xanthidia possessed a horny skeleton. *Vibrio Tritici*. (Jan. 1863.)

Physical Characters of Magnesia. (Pharm Journ., vol. 8, p. 266.) Papers read at the British Pharm. Conference on Microscopic Analysis Applied to Pharmacy. (Joint author.)

Mr. Deane also worked for and with Pereira, some of the drawings in The last edition of the *Materia Medica* being made from his preparations. Foraminifera (Synopsis) of the Middle and Upper Liass of Somersetshire. *Eliptoidina*, a new Genus of Foraminifera, with Notes on Structure and Affinities.

Papers on Microscopic Subjects and drawings passing.



respecting its stability and adaptability for use as an explosive.

"In the branch of analysis, it is hardly necessary to refer to the zealous prosecution of the important subject of the analysis of potable water, further than to prognosticate that, out of the active investigations which have recently so much engaged our attention, we may look forward to an early solution of the problem.

"In concluding this very brief review of the progress of chemistry, I must not omit to mention the interest which has been re-awakened in the chemical investigation of geological phenomena; and we look forward with interest to the new views which we may expect to be developed.

## Pharmacy and Therapeutics.

### ODOFORM.

THIS compound, discovered in 1824 by Serullas, is produced by the action of iodine and alkalis or alkaline carbonates on wood-spirit, and has the chemical composition indicated by the formula  $\text{CHI}_3$ . It differs chemically from chloroform,  $\text{CHCl}_3$ , only in the substitution of iodine for chlorine. In appearance it very much resembles broken and partially-pulverised roll sulphur; its taste is sweet; it is insoluble in water, but soluble in alcohol and ether. Its medicinal properties are tonic, stimulant, alterative, and anæsthetic, although in the latter respect it bears no comparison to chloroform, except in its local effects, which are so marked as, when applied by suppository to the rectum, to permit defecation without the knowledge of the patient. It is similar to iodine in its therapeutic uses.

According to the Paris correspondent of the *Philadelphia Medical and Surgical Reporter* this substance has recently been employed by M. Demarquay with remarkable effect in cancer of the uterus. A woman, perfectly exhausted with hemorrhage and pain, and having a baselated tumour occupying the uterine orifice, was ordered a vaginal suppository of cacao butter and iodoform, two and a half drachms of the former to eight grains of the latter. During four or five days no benefit was derived from this treatment, but on the sixth, the suppository was pushed into a cavity of the tumour, and from that day the pains ceased as if by enchantment. Certain digestive troubles disappeared, the patient's appetite and sleep returned, and very soon she found herself so completely comfortable that she had no doubt of her rapid recovery. The suppository was introduced every two days for three months, and the comfort of the patient was undisturbed to the last moment. In another case, not yet terminated, the remission of suffering was as complete. Instead of the suppository, an emulsion of one part of tincture of iodoform to four of glycerine may be applied upon lint. These applications should not be made until the inflammatory period has passed.

M. Besnier has employed finely-pulverised iodoform upon the surface of fresh wounds cicatrising slowly, upon syphilitic ulcerations, and upon the open surface of cancers, with manifest good results. He thinks that iodoform should always be tried in the various affections of mucous membranes, especially the nasal, pharyngeal, and vaginal; in cancerous ulcerations of the uterus and other regions, and in varicose and typhoid ulcerations of the skin.

### NEGLECTED TONICS.

IN a paper on the treatment of recurring intermittents, Dr. Gibbons, of San Francisco, the able editor of the *Pacific Medical and Surgical Journal*, writes:—

"Where a daily tonic is required, I prefer some other than quinia, for two reasons: first, it is not the best tonic; second, it is the best anti-periodic. Therefore I resort to some other salt or preparation of cinchona, especially the infusion, or the elixirs which are in such high repute at present, in their various combinations with iron and so forth. There are other vegetable tonics of great value,

particularly when the system has become inured to the cinchona preparations. I refer to serpentaria, colombo, geutian, etc., which are sadly neglected in these days of new things, when cinchona is the only tonic, and quinia is cinchona. Thirty or forty years ago the range of vegetable tonics was much wider than now, and they were preferred in the form of substance or infusion. The old doctors dosed their patients with delectable teas at the rate of a pint or a quart a day. But what did they know? Modern expectants have so vitiated the appetites of invalids with their microscopic granules of sugar medicated by 'three shakes from above downwards' [*Hahnemann*] that if physicians dare to prescribe anything worse than ambrosia or nectar, their patients are likely to fall back on whisky."

## Photography.

### COLLODION WITHOUT BROMIDES.

MR. R. WAITZ, of Boston, sends the following formula to the *Philadelphia Photographer*, as giving results equal to collodion containing bromide:—

Iodide of ammonium	...	...	4 grains
Iodide of cadmium	...	...	3 "
Chloride of calcium	...	...	1 grain
Collodion (plain)	...	...	1 ounce
40 to 40 grains nitrate bath.			

#### DEVELOPER.

Protosulphate of iron	...	...	1 ounce
Water	...	...	12 ounces
Alcohol	...	...	1½ "
Acetic acid	...	...	1½ "

Mr. Waitz is now using this process in his daily practice. He finds it to work very quickly, as he is able to secure excellent negatives of children in two seconds, requiring no re-developing. We have inspected several of Mr. Waitz's negatives, the editor of our contemporary remarks, and find them to excel those made by him with bromised collodion.

Mr. J. W. Black is also using the same formula, entirely discarding the use of bromised collodion in his dark room. We saw him make a number of exquisite negatives as large as 11 by 14, full of charming gradation and softness, and fully equal to anything we have ever seen.

It is so simple and so cheap that it will come into general use, doubtless, bromide patent extended or not.—*Photographic News*.

## Dentistry.

### ROOT FILLING.

BY W. H. WAITE, D.D.S. \*

THIS is probably the most delicate operation which the Dentist is required to perform in the ordinary routine of daily practice.

The necessity of carefully plugging the root canals after having extirpated the pulp is so obvious, that it is scarcely necessary to refer to the reasons for so doing. If the canals are left unfilled and the outer cavity sealed up, there will be a portion of air confined within the canals which in a short time must become foul, and acting as an irritant to the periosteum through the apical foramen, will entail the sequence of periostitis, alveolar abscess, etc. If to avoid this result we have recourse to the small hole drilled into the pulp cavity, stagnation of the air or gas within may be precluded so long as the hole is kept free, but the fluids of the mouth will be admitted, and on the slightest provocation, especially if the hole should be stopped for a short time,

\* Contributed to the *British Journal of Dental Science*.



there will be the same trouble as in the first case. If success in these cases of devitalising the pulp had to depend on the shallow probabilities which are presented by either of the foregoing methods, one would rather extract the tooth at once and have done with it. Fortunately, however, there is just one other mode of treatment which involves neither irritation from foul air, nor from impure fluids, and which, if properly carried out, offers a fair prospect of success. Many and various are the materials which have been suggested and experimented upon for root-filling; gold foil, tin foil, Hill's stopping, cotton and creasote, etc., of which the first and the last named appear most in accordance to the requirements of the case. Gold foil is a good root-filling for the same reasons as render it preferable for outer cavities, and, but for one or two difficulties, might be exclusively the best; first, the situation and size of some root canals strongly disavow the introduction and consolidation of gold foil; secondly, in easy cases, such as front teeth in the upper jaw, specially in young subjects, there is danger of thrusting the foil through the apical foramen, and thus laying the foundation of trouble which will probably eventuate in loss of the teeth; and lastly there is no active principle in gold foil which would operate to check decomposition of any minute particle of air, or fluid, or pulp which may by chance or misadventure be left in the canal.

Cotton and creasote, or better, cotton saturated with a mixture of creasote and tannin, is by many excellent operators considered equal, if not superior, to gold foil. The filling is prepared by taking a lock of cotton in the left hand, and with the right thumb and forefinger spinning out a thread about the size of an ordinary needle, and from two to three inches long, as the case may be. This should be done evenly, and all lumps or bits of dirt carefully picked off, as they interfere with the condensation. Then the thread is passed through a little dish of creasote and tannin, and picked up with the thumb forceps, to be carried to the cavity; one end of it is laid in the outer cavity, the remainder lying on the napkin, when the root plugger (a smooth, pointed, untempered broach) is taken, and the end of thread picked up by it, is carried slowly and carefully to the apex of the root. The plugger is now partially withdrawn, then thrust back again and again, by each movement carrying more of the thread into the root, and condensing each portion as it is introduced until the canal is full, and that without once entirely removing the plugger from the canal. By this means (and this means alone, so far as the writer's observation goes) a tolerably perfect filling may be ensured, but the manipulation is not to be obtained without practice and some perseverance.

The advantages of this kind of root-filling may be enumerated thus:—First, facility of introduction; after a little practice it will be found that whenever a broach can be inserted into a canal, a cotton filling may be introduced. Second, thorough condensation; this can be secured as described above, without risk of thrusting the material through the foramen, i. e. if ordinary care is exercised. Third, specific properties. Creasote coagulates albumen; tannin forms with albumen, an insoluble compound, the tannate of albumen. The cotton forms a most convenient medium for conveying and retaining these agents in the canal. Hence, supposing that a small remnant of pulp be left in, or that there should be any infiltration of fluids through the cementum, or any other condition arising which, if unchecked, would result in decomposition within the canal. We have in this filling properties affording us some considerable ground for concluding that such untoward conditions would be arrested in their incipency, and the health of the parts maintained. In accessible situations it is probable that a combination of the latter with gold foil would ensure the most perfect root-filling we could obtain, a small portion of cotton soaked in the mixture and inserted in the upper third of the canal, while the remainder is solidly plugged with gold.

It has been objected that cotton itself is liable to decomposition, and alone it no doubt would be; but one has seen fillings removed from roots after a considerable period, as sweet and perfect as when first introduced; only a few days back I removed such a filling which was put in more than two years ago; it was as good as ever. The removal was for experiment simply, and a similar filling was immediately re-introduced.

## Corner for Students.

The chemical formulae employed in this section are based upon the new system of atomic weights, unless the use of the older system is specially indicated. In the *British Pharmacopœia* the symbols corresponding to those adopted here are printed in heavy Clarendon type.

### PRIZES.

The Prize offered last month (*Eliot and Storer's Manual of Inorganic Chemistry*) has been won by

Mr. W. M. McNAUGHTON, of Belfast.

The answers communicated by this gentleman are remarkable for their fulness and perspicuity, and, with two exceptions, are minutely correct. Mr. R. Moss, of Dublin, has also displayed great ability, but his answers are certainly not more meritorious than those of his successful competitor, who is younger and less qualified for scientific pursuits. A table of marks will be found under our notices to correspondents.

This month we purpose to award as the First Prize Dr. Attfield's *Introduction to Pharmaceutical Chemistry*, or Eliot and Storer's *Manual of Inorganic Chemistry*, at the option of the winner.

We shall also award as a Second Prize Professor Roscoe's *Lessons in Elementary Chemistry* (Macmillan), an excellent work, in which the new notation is exclusively employed.

### QUESTIONS.

#### PHARMACEUTICAL CHEMISTRY.

I. POTASSE TARTRAS ACIDA, B.P.—According to the prescribed quantitative test, 188 grains of this salt heated to redness leave an alkaline residue which requires for exact neutralisation 1,000 grain-measures of the volumetric solution of oxalic acid. What is the nature of the saline portion of this residue, and what is its weight in grains?

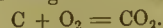
II. LIQUOR SODÆ, B.P.—According to the *Pharmacopœia* this solution has the sp. gr. 1.047, and corresponds to 4.1 per cent. by weight of sodic hydrate, NaHO. From these data calculate the weight, in grains, of crystallised sodic carbonate (Sodæ Carbonas, B.P.) required for the production of 1 pint of the solution.

III. HYDRARGYRI SULPHAS, B.P.—What is the theoretical yield of this salt, in grains, when the prescribed quantities of mercury and acid are employed?

IV. HYDRARGYRUM AMMONIATUM, B.P.—What is the weight, in grains, of the product of the official form?

#### GENERAL CHEMISTRY.

V. COMBUSTION OF CARBON.—Carbon on burning combines with oxygen, forming carbonic anhydride, thus—



Air contains 23.1 per cent. of oxygen. What weight of air, in grammes, is needed for the complete combustion of 1 kilogramme of carbon?

VI. CARBONIC ANHYDRIDE.—CO<sub>2</sub>, the molecule of carbonic anhydride, or carbonic acid gas, weighs 44, and corresponds to 2 volumes; in other words, 44 grammes of this gas at the standard temperature and pressure measure 22.38 litres. What volume of carbonic anhydride would be obtained by combining 100 grammes of oxygen with an adequate weight of carbon? [See Data in our June number.]

VII. WEIGHT OF CARBON.—Required the weight of carbon, in grammes, contained in a litre of carbonic anhydride at the standard temperature and pressure.

VIII. PRODUCTION OF NITRIC ACID.—One pound of nitre, KNO<sub>3</sub>, is distilled with sufficient sulphuric acid to effect its decomposition. State, in grains, the weight of gaseous ammonia, NH<sub>3</sub>, that will be required to neutralise the distillate, and also the weight of the nitrate that will be thus formed.

#### SPECIFIC GRAVITY.

IX. MERCURY.—Required the weight of a cubic inch of mercury, the specific gravity of which is 13.6 [A cubic inch of water weighs 252.456 grains.]—J.R.

X. SOLID.—200 grains of a solid substance are introduced into a bottle, which is then filled up with alcohol of sp. gr. 0.870. The bottle is capable of holding 400 grains of the spirit, but its contents now weigh 570 grains. What is the sp. gr. of the solid?—J.R.

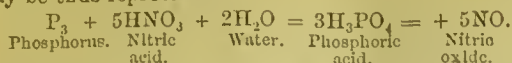


## ANSWERS.

[See Questions in June number, page 355.]

## PHARMACEUTICAL CHEMISTRY.

I. ACIDUM PHOSPHORICUM DILUTUM, B.P.—The reaction may be thus represented:



Since P = 31 and  $\text{H}_3\text{PO}_4 = 98$ , and as 413 grains of phosphorus are taken, the theoretical yield of acid,  $\text{H}_3\text{PO}_4$ , may be found by the proportion

$$31 : 413 :: 98 : x; \therefore x = 1305.613 \text{ grains.}$$

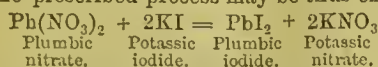
Now according to the quantitative test 6 fl. drachms of the dilute acid correspond to 35.5 grains of phosphoric anhydride,  $\text{P}_2\text{O}_5$ , consequently the 160 fl. drachms, or 1 pint, obtained by the form, represent 946.667 grains.

Again, since two molecules of the acid, or  $2\text{H}_3\text{PO}_4 = 196$ , may be formed from one molecule of the anhydride, or  $\text{P}_2\text{O}_5 = 142$ , the weight of anhydride corresponding to the theoretical yield of acid may be found by the proportion

$$196 : 1305.613 :: 142 : x; \therefore x = 945.903 \text{ grains.}$$

Hence the total amount of phosphoric anhydride as indicated by the quantitative test, and the total amount deduced from theoretical data are virtually the same, the difference being only about half a grain.

II. PLUMBI IODIDUM, B.P.—The chemical reaction involved in the prescribed process may be thus expressed:



The weights of plumbic nitrate and potassic iodide required for the reaction are as 331 to 332, but in the B.P. form equal weights of the two salts are ordered, so that the plumbic nitrate is in slight excess. We must therefore take the relative weights of 2KI and  $\text{PbI}_2$  for the proportion from which we calculate the weight of the product, thus:

$$332 : 1750 :: 461 : x; \therefore x = 2429.97 \text{ grains.}$$

[Some of our correspondents have based their calculations on the weight of the lead salt, and obtained 2437.311 grains as the weight of plumbic iodide produced.]

III. PILULA HYDRARGYRI, B.P.—As the 6 ounces obtained by the form contain 2 ounces of mercury, 5 grains contain 1.667 grains of the metal.

## WEIGHTS AND MEASURES.

IV. TANK.—The capacity of the tank in cubic feet is deduced from its dimensions, thus:  $4 \times 8 \times 6 = 192$  cubic feet; and since 1 cubic foot corresponds to 6.2355 gallons, its capacity in gallons is  $192 \times 6.2355 = 1197.216$ . Then, as a gallon of water weighs 10 pounds, the weight of the water which the tank holds when full is 11972.16 pounds, the difference required.

V. INCHES AND MILLIMETRES.—As 1 millimetre corresponds to .03937 inch

$$30 \text{ in.} = \frac{30}{.03937} \text{ or } 762.002 \text{ mm., and}$$

$$729 \text{ mm.} = 729 \times .03937 \text{ or } 28.701 \text{ in.}$$

## SPECIFIC GRAVITY.

VI. DENSE WOOD.—The loss of weight on weighing the wood and copper together in water is 627 grains, and as the copper alone loses 230 grains in water, the loss due to the wood is 397 grains. The sp. gr. of the wood is found by dividing its weight in air by this loss, which represents the weight of water displaced; thus

$$\frac{600}{397} = 1.511 \text{ sp. gr. of wood.}$$

[We extracted this question from a work on Physics without checking the answer given, which we now find to have been erroneous. According to the data the wood is heavier than water, and does not need a sinker.]

VII. ALCOHOL.—The glass ball loses 30 grains of its weight in water, and 28.14 grains in a sample of diluted alcohol. The first loss represents the weight of water displaced, the second the weight of an equal bulk of the alcohol,

$$\therefore \frac{28.14}{30} = .938 \text{ sp. gr. of the alcohol.}$$

VIII. NITRIC ACID AND PROOF SPIRIT.—As 4 fl. ounces of water weigh 1750 grains, the weight of an equal bulk of

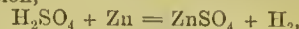
nitric acid of sp. gr. 1.42 is  $1750 \times 1.42 = 2485$  grains. Again, as 5 fl. ounces of water weigh 2187.5 grains, the weight of an equal bulk of proof spirit of sp. gr. 0.92 is  $2187.5 \times 0.92 = 2012.5$  grains. Hence the difference between the weights of acid and spirit in the opposite pans of the balance is 472.5 grains.

## CALCULATIONS RELATING TO GASES.

IX. PRODUCTION OF CHLORINE GAS.—Since 58.5 grammes of sodic chloride, NaCl, can yield 35.5 grammes of chlorine, or the weight corresponding to 11.19 litres of the gas at the standard temperature and pressure, the weight of salt required for the production of 10 litres is found by the proportion

$$11.19 : 10 :: 58.5 : x; \therefore x = 52.279 \text{ grammes.}$$

X. PRODUCTION OF HYDROGEN GAS.—According to the symbolic equation,



98 grammes of sulphuric acid and 65 grammes of zinc are required for the production of 2 grammes of hydrogen or  $11.19 \times 2 = 22.38$  litres. To calculate the weight of sulphuric acid,  $\text{H}_2\text{SO}_4$ , that must be decomposed for the production of 20 gallons of the gas at the standard temperature and pressure, we reduce the gallons to litres ( $20 \times 4.543487 = 90.86974$ ) and obtain the proportion

$$22.38 : 90.86974 :: 98 : x;$$

$$\therefore x = 397.91 \text{ grammes acid.}$$

From this result the weight of zinc required is deduced thus:

$$98 : 397.91 :: 65 : x;$$

$$\therefore x = 263.92 \text{ grammes zinc.}$$

XI. SYNTHESIS OF WATER.—Since 2 volumes of hydrogen combine with 1 volume of oxygen to form water, 6 litres of the former will combine with three litres of the latter. Now, as the standard volume of 11.19 litres corresponds to 1 gramme of hydrogen or 16 grammes of oxygen, the weights of the combining gases are found by the following proportions:

$$11.19 : 6 :: 1 : x; \therefore x = .536 \text{ grammes hydrogen.}$$

$$11.19 : 3 :: 16 : y; \therefore y = 4.289 \text{ grammes oxygen.}$$

Hence the weight of water produced is  $x + y = 4.825$  grammes.

The weight of the 7 litres of oxygen remaining uncombined is easily found by the proportion

$$11.19 : 7 :: 16 : x; \therefore x = 10.009 \text{ grammes.}$$

## TO CORRESPONDENTS.

\* \* All questions forwarded to us for publication in this "Corner for Students" should be accompanied by the answers which the propounders believe to be correct. As a rule, numerical results should be worked out to three decimal places. Communications should reach us at least ten days before the date of publication, and include the names and addresses of the writers.

W. M. McNaughton.—Can you suggest any better way of forwarding your prize than by book-post?

J. Y.—You have mistaken the purpose of our first question, and your own calculation involves an error. In calculating the sp. gr. of the dense wood, you have taken the dividend as the divisor.

Self-taught.—By sending full solutions instead of bare results, you will obtain more marks.

Auditor.—The discrepancy you point out is too slight to affect the practical value of the test. In the answer to the tank question you have misplaced the decimal point.

H. H.—Your answer respecting plumbic iodide is strangely incorrect.

J. G.—You have taken the dividend for the divisor in your solution of the first specific gravity question.

J. R.—The book you refer to is an excellent one, though rather old-fashioned. You should obtain Roscoe's *Lessons on Elementary Chemistry* as a supplemental text-book.

## Marks Awarded for Answers.

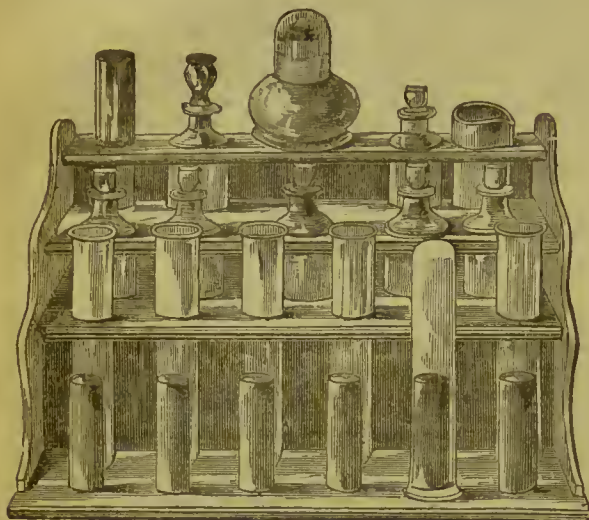
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	Total
W. M. McNaughton	6	10	3	5	3	5	4	4	10	10	9	69
R. Moss	9	6	3	5	4	5	4	4	10	10	8	68
G. Welborn	8	4	3	5	3	5	4	4	8	6	10	60
W. Greig	3	3	3	5	3	5	4	4	8	9	9	56
W. X. Y.	—	3	2	5	4	5	4	4	9	10	9	55
T. W. L.	6	4	3	5	3	5	4	4	6	6	6	52
J. Young	0	8	3	5	3	0	4	4	8	9	6	50
J. Watts, junr.	0	2	3	4	4	5	4	4	8	5	8	47
Self-taught	3	3	3	5	2	2	4	4	6	5	7	44
Auditor	3	3	3	0	3	5	4	4	3	6	6	40
H. Habgood	—	0	2	5	4	4	4	4	6	5	6	40
J. Gregory	0	8	3	5	2	0	4	4	5	6	2	39
F. J. Trantor	4	3	2	5	0	3	4	4	3	3	6	37
T. S. Sanders	2	2	2	0	4	5	4	1	0	5	7	32
G. P.	3	2	2	5	2	5	4	0	0	0	0	27
A. Nicholls	0	3	3	2	2	5	4	4	4	—	—	26
E. C. Saunders	—	0	3	2	3	5	4	0	2	0	3	23
T. Smailes	—	—	2	4	2	5	4	4	—	—	—	21
W. Masters	—	5	3	5	0	5	—	—	—	—	—	18
J. Robinson	—	—	3	—	2	0	—	4	—	—	—	9





## MAW'S URINARY TEST STAND.

The elegant and compact arrangement, represented by the annexed engraving, is one of the novelties described in Messrs. S. Maw and Son's new supplement to their catalogue. It is a well-made mahogany stand, fitted with all the requisites for testing urine. The stand itself consists of a test-tube rack with draining pegs, a series of shelves for reagents and instruments, and a drawer for holding small articles.



The collection of apparatus comprises seven one-ounce narrow-mouthed stoppered bottles for the usual reagents, viz.: nitric acid, acetic acid, ammonia, potash, baric nitrate, argentic nitrate, and ammonic oxalate; a urinometer; a trial glass; Chalk's drop bottle; a two-ounce glass spirit lamp; pipette, stirring-rod, microscopic slides and thin glass, watch glasses, six large test-tubes, tube-holder, brass forceps, blow-pipe, platinum foil and wire, litmus and turmeric books, a thermometer and a Stanhope lens. Medical practitioners will be delighted with this test-stand, which contains so many things, and yet occupies so little space.

## HOFF'S MALT EXTRACT.

A SAMPLE of Joh. Hoff's Malt Extract has been forwarded to us for examination. According to the testimonials of many foreign physicians bearing high-sounding titles, this preparation must be the long-sought elixir of life. When we find ourselves suffering from diseases of the respiratory organs, chronic affections of the stomach, hemorrhoids, consumptive fever, and general constitutional debility, we may turn to this wonderful Extract for relief; but as we are not in a dangerous state at present, we will take the testimonials on trust, and simply inform our readers that a depôt for the Malt Extract has been established in Great Britain!

## LIEBIG'S EXTRACT OF MEAT BISCUITS.

MESSRS. PEER, FREAN, and Co. have obtained Letters Patent for an invention relating to the manufacture of biscuits, containing Liebig's Extract of Meat. According to their own statement the properties of the extract remain unchanged during the manufacture, and each pound weight

of the biscuits contains the quantity of Liebig's extract obtained from three pounds of the best meat. We have no reason to doubt this statement, as the biscuits have the unmistakable odour and savour of the extract. They are certainly very nice, and we should imagine that they would be very acceptable to travellers, tourists, sportsmen, and all who are prevented by pleasure or business from taking their meals at the usual times. The biscuits are circular, 64 weighing 1 lb., and they are sold in pound and half-pound tins.

## SPIER'S PERFUME DIFFUSER.



The accompanying woodcuts represent two forms of a new perfume diffuser, which is in every respect preferable to the arrangement of tubes by which the spray of perfume has hitherto been produced. This elegant little apparatus consists of a flask with two tubulures, which are provided with caps to prevent the waste of perfume by evaporation. From the side opening a fine glass tube descends to the bottom of the flask. On blowing air into the vessel, the liquid is forced up this fine tube and "atomised" into a mist, which rapidly communicates to the air the aroma of the spirit.



The refrigerating effect of this mist when it is projected against the forehead gives great relief in cases of headache, and is most refreshing in hot weather. With the old form of spray producer the breath of the operator carried the perfume, but with this elegant instrument nothing but the perfumed spirit escapes from the jet. The vase-shaped diffuser is a very pretty ornament for a drawing-room side-board or toilet-table, and it is capable of holding a good supply of spirit. The little pocket diffuser is quite as effective, but less elegant in form.



## MATERIA MEDICA.

*The Essentials of Materia Medica and Therapeutics.* By ALFRED BARING GARROD, M.D., F.R.S., F.R.C.P., Professor of Materia Medica and Therapeutics at King's College, London; Physician to King's College Hospital, and Examiner in Materia Medica in the University of London. Third Edition, revised and much enlarged. London: Walton. 1868.

*A Manual of Materia Medica and Therapeutics, including the Preparations of the British Pharmacopœia (1867) and many other approved Medicines.* By J. FORBES ROYLE, M.D., B.A., F.L.S., and F. W. HEADLAND, M.A., F.R.S., etc. Fifth Edition. London: Churchill and Sons. 1868.

We are glad to announce the appearance of new editions of the above standard works on Materia Medica, bringing down our knowledge on this subject nearly to the present time. Their publication has, of course, been necessitated by the issuing of the last edition of the British Pharmacopœia. Both of these books are, doubtless, well known to most of our readers; we shall, therefore, confine our remarks on them to pointing out the improvements and additions that they contain.

Taking Dr. Garrod's book, an attentive perusal of it gives one the idea that its learned author has erred rather on the side of concision, some of the descriptions and remarks being cut down to the minimum, while a large number



of non-official preparations in pretty extensive use have been omitted altogether. Dr. Garrod, in mentioning non-official preparations has been possibly guided by their worth; but we venture to suggest that such a course of proceeding is calculated to render this book too meagre in its information for the educated pharmacist. Such works as the present are meant to be read, not merely by the student, but by the old practitioner, who has heard of certain new remedies, worthless or not, about which he wants some information. It is a difficult thing, of course, to say where the line should be drawn; but, in this instance, we think Dr. Garrod has drawn it at too short a distance from the bounds of the British Pharmacopœia. For instance, we find no allusion to either chlorodyne, or the *Sarracenia purpurea*. Chlorodyne, we know, is looked on by many of the medical profession as a quack medicine, but judging from the immense quantities sold, it must of necessity be in very great request in some quarters. *Sarracenia purpurea* is said by many medical men to be a specific for small-pox. Others as strenuously deny it, but still it has been used sufficiently to deserve notice in a work like the present. Carbolic acid receives very contemptuous treatment at Dr. Garrod's hands, being described in a page. The description of the pure acid, too, is incorrect, Dr. Garrod following that given by the authors of the British Pharmacopœia. The acid therein described is that discovered by Laurent, which is now known to be true carbolic acid combined with a liquid homologue. True carbolic acid melts at 106° F., not at 95° F., and boils at 359° F., not at 370° F. Dr. Garrod also omits to mention the eminent value of carbolic acid in combating cattle plague. Its great efficacy as an inhalant in certain forms of phthisis and throat disease is also ignored. The article on Cinchona is wretchedly meagre, and the successful acclimatization of the cinchona in the Neillgherries is referred to as "an endeavour." Does not Dr. Garrod know that cinchona growing in India is an accomplished fact, both botanically and commercially, and that Indian grown bark of first-rate quality has been sold in the Mincing-lane Market? There are several omissions and oversights of a similar nature, but they may be sunk in the otherwise universal merit of the book. Dr. Garrod is one of the few physicians who have turned their attention to the philosophy of therapeutics; the portion of the book treating on this subject is, as one might have supposed, super-excellent. The learned author instead of trying to describe the action of every particular drug mentioned in the first part of the book, wisely treats the subject in a broad and general way, laying down rules for prescribing the various medicaments whose action and properties are described in in the first division of the work.

We are pleased to see that Dr. Garrod is no friend to the unphilosophical system of mixing together some ten or twelve different drugs, under the idea that if one will not cure, some of the others may. On considering the matter attentively, it really seems as if we wanted to go back to first principles again, and investigate thoroughly the specific action of some of our more common medicaments, and having done that, make a similar investigation of their properties in combination. The *Lancet*, and other medical journals, furnish continual instances of the ignorance displayed by medical men in the very rudiments of therapeutics, of the anomalous action of well-known drugs, and of the desperate groping in the dark after new remedies, in the vain hope that "something may turn up." The remarks on the forms and times of administration of medicines are very judicious, and ought to be learnt by heart by every member of the medical profession. The same praise may be extended to the section on incompatibles. The different modes of exhibiting medicines are also explained with great clearness. The method of introducing medicines into the system by subcutaneous injection has always appeared to us to offer peculiar advantages, and we are glad to learn, on the authority of the learned doctor, that it is daily gaining ground. Similar remarks will apply to inhalation. The classification of medicines by Dr. Garrod, although, of course, to a certain extent empirical, appears to possess the merit of being consistent, and thoroughly practical.

In the appendix there is an extremely useful posological table, giving a list of all the preparations of the British Pharmacopœia with their doses in an alphabetical form. Another table, showing the proportions in which some of the more important medicaments of the Pharmacopœia are

contained in the official preparations. The index is copious, and the book is well got up. In conclusion, we must congratulate both the medical and pharmaceutical professions on the appearance of Dr. Garrod's book, which, in spite of a few errors and omissions, such as we have already described, will do much to make therapeutics an exact science, and do away with the fearful practice of "leaping in the dark" when health and life are in question. We must not omit to state that Dr. Garrod has adopted the present system of chemical formulation, in explaining the processes of the Pharmacopœia. We have specially examined these explanations with a view of testing their correctness, and found them in every case unexceptionable. The whole of them are, we believe, from the talented pen of Dr. Garrod's son.

We now come to Dr. Headland's edition of Dr. Royle's classical work. It is, of course, much more extensive and encyclopædic than the one we have just laid down. The descriptions of drugs, their properties and mode of preparation are much longer and more detailed than those given by Dr. Garrod, but somehow or other there is an old-fashioned smack about them that is not possessed by the shorter ones. Thus, the old chemical formulæ and atomic weights are religiously adhered to, to say nothing of such fossil nomenclature as "sulphuret of carbon," "barytes," "strontian," etc. There are also numerous omissions throughout the book, and there are many cases in which the information conveyed is not brought down to the present time. For instance, Dr. Headland appears unaware of Mr. E. C. Stanford's method of manufacturing iodine which might surely have been described. The fact, too, that most of the bromine at present used comes from Stassfurth is also omitted. The methods of preparing oxygen are all old-fashioned, the usual method of obtaining that gas from a mixture of oxide of manganese and chlorate of potash being utterly ignored. Stassfurth as the principal source of potash is not mentioned when describing that alkali. In the account of the sources of alum Whitby and Hurlet are named as the principal localities where this salt is obtained. Dr. Headland does not seem to be aware that large quantities of benzoic acid have been made during the last four or five years from the urine of herbivorous animals, or that a cheap source of this acid has been discovered by MM. Depouilly in naphthalin. The description of the manufacture of carbolic acid is very poor, and all mention of its more modern applications omitted. The latest information, too, about the Indian cinchona plantations is not given, the botanical success of that great undertaking being alone mentioned. This omission is all the more singular considering the great share Dr. Royle had in furthering the good work. In fact, as far as information goes that is more than three or four years' old, we have plenty of it, of the most trustworthy character, but we regret to say that, in many cases, Dr. Headland does not bring his facts down to the present time. The essay on Therapeutics is, of course, an excellent one, but it is hardly so modern in its theories and practice as that by Dr. Garrod. In fact, if we wanted to make a perfect book on this subject we should take Dr. Headland's "Materia Medica," with a little modernizing, and add to it Dr. Garrod's "Therapeutics and Posological Tables." Dr. Headland is apparently no friend of the new system of formulation, seeing that he gives the new formulæ in an appendix instead of embodying them in the text as Dr. Garrod has done.

#### ANILINE DYES.

*On Aniline and its Derivatives.* A Treatise on the manufacture of Aniline and Aniline Colours. By M. REIMANN, P.D., L.A.M. To which is added, in an Appendix, the Report on the Colouring Matters derived from Coal Tar at the French Exhibition, 1867. By Dr. ANDREW HOFMANN, F.R.S., MM. G. de Laire, and Ch. Gerard. The whole revised and edited by WILLIAM CROOKES, F.R.S. London: Longmans, Green, & Co. 1868.

Or all the "fairy tales" told by science for our admiration and profit, there is none more marvellous than the story of the aniline dyes. Springing originally from a fact accidentally discovered during the progress of a purely theoretical investigation, those wonderful creations of the laboratory have



increased and multiplied with singular fruitfulness. At one time theory has taught practice; at another, practice has given back to theory materials for researches which have themselves resulted in new and brilliant discoveries; indeed, in the whole history of chemical manufactures we cannot name one which has progressed in so philosophical a manner as the great aniline dye industry. The subject is a tempting one, and it is hard to resist the desire to descant upon it at length, instead of introducing to our readers the work standing at the head of this article.

The thoroughly practical treatise by Dr. Reimann, and the somewhat theoretical essay by Dr. Hofmann, form a happy couple that are fitted for one another in every way; and our hearty thanks are due to Mr. Crookes for having played the part of the matchmaking mamma on this occasion. Dr. Reimann's portion of the work is profoundly practical, giving the minutest details of the processes for obtaining all the more important colours, and is illustrated by several cuts of apparatus, evidently of German origin. By the way, may we ask when English wood engravers will condescend to bestow a little attention on scientific illustrations, and produce cuts that may be compared with those appearing in French, German, and American publications? The number of different colours described is truly astonishing. Not only have we all the seven colours of the prismatic spectrum shading into one another with almost perfect accuracy, but we appear to be on the threshold of the discovery of an equally boundless number of greys, browns, and other tertiaries, some of the latter being of so dark a shade as to serve the purpose of a true black.

Dr. Reimann's treatise is written in concise practical language, and Dr. Hofmann's style is only too well known to our readers to need praise from us. The following extract, showing the influence of accident on discovery, is in the learned doctor's very happiest vein:—

"A dyer, like all others of his craft at that time, was busily occupied experimenting with the aniline dyes. Amongst other things, he tried a reaction described by M. Lauth, viz., that of aldehyd on a sulphuric solution of aniline red. In this reaction, a substance is produced which gives to solutions an extremely evanescent blue colour. M. Lauth had given up all idea of utilising this blue colour in practice; and M. Cherpín endeavoured to fix the same colour on silk or wool with similar want of success. His attempts, although fruitless, were incessantly renewed, exhausting his purse, but not his patience. One day, however, discouraged at the want of success attending some recent experiments on which he had founded great hopes, he was on the point of relinquishing the attempt at conquest over this fugitive blue, when the idea struck him to confide his troubles to an old friend, a photographer. 'A trouble shared is a trouble halved,' says the proverb. Cherpín proceeded to test this saying, and experienced the reward of his perseverance and his confidence in the consolations of friendship. He found his photographic friend, and confided to him the history of all his hopes, his experiments, and his fruitless results.—'Fix the blue?' said his friend. 'Is that the only difficulty? Why it's the easiest thing in the world! Have you tried hyposulphite of soda?'—'Hypsulphite of soda? *Mon Dieu*, no! Do you think it will fix my colour?'—'Of course it will. Don't you know that hyposulphite of soda is the fixing agent *par excellence*, and that when we want to fix anything in photography, that is the substance we always employ?'

"Happy he who possesses faith! Cherpín tried hyposulphite of soda, and his joy and admiration of the chemical knowledge of his friend may be imagined when he saw his blue colour metamorphosed into a splendid green, this time perfectly stable. It is scarcely necessary for us to add, that the mode of action of hyposulphite of soda in this case is entirely different from its photographic action, and that it would be quite impossible to predict the one by knowing the other.

"This anecdote contains a moral. It shows, in our opinion, not the result of chance, for that is common to all the world,—for where is the discovery to which chance has not more or less contributed?—but it shows the power of the will, the power of perseverance. Chance only favours two kinds of persons—those sufficiently instructed, or endowed with talents eminent enough to observe it, to seize it, and to profit by it; and those who, by patience,

perseverance, and the power of their will, force it in time to become useful to them."

What a grand moral this ludicrous episode ought to convey to our students if they will only read it aright!

The book is admirably got up, and is printed in clear, readable type; a few misprints here and there, however, indicate a little want of care in proof-reading. We have before had occasion to praise Mr. Crookes as a scientific translator when noticing his edition of Wurtz's *Chemical Philosophy*, and the present work only confirms our opinion of his merits in this direction. Taken in conjunction with Hofmann's Report on the International Exhibition of 1862, we now have a complete history of the coal-tar dyes, both practical and theoretical—a history which ought to be read by every student, not so much for the purpose of gaining a knowledge of those wonderful substances, but rather as showing the utter absurdity of ever trying to divorce practice from theory, and the impossibility of carrying on chemical manufactures by means of that worst of all rules—rule of thumb.



#### NEWCASTLE CHEMICAL SOCIETY.

A NUMEROUSLY attended meeting was held on the 29th ultimo in a committee-room of the Literary and Philosophical Institution of Newcastle-on-Tyne to consider the advisability of establishing a chemical society in the town. Sir Wm. Armstrong, K.C.B., was unanimously called upon to preside.—Mr. A. Freire-Marreco, acting as secretary *pro tem.*, explained that the idea originated with Mr. R. C. Clapham, who, before his departure for London, had talked the matter over with several practical and theoretical chemists, and received many assurances of their co-operation and support. The experiment could be made without much difficulty or expense; it would undoubtedly prove a great convenience to all connected with chemistry, would also enable the members to secure the perusal of many foreign scientific periodicals which could not now be readily obtained, and therefore it was advisable to carry the proposal to a successful termination if possible. Mr. H. B. Brady then submitted a rough draught of rules for the "Newcastle Chemical Society," based on those of the Dublin Chemical Club, in which the objects were stated to be "the general promotion of chemistry and the allied sciences in the district, more especially with regard to practical application; and that the periodical meeting of its members for the reading and discussion of papers, the exhibition of specimens, and, when practicable, the purchasing of apparatus and books, be the means employed for the attainment of such end."—The Chairman inquired whether the promoters had reason for supposing the undertaking would be supported with sufficient zeal and enthusiasm, because it frequently happened that ill-matured attempts were made to establish societies, and then, after struggling on for a year or two, they fell rather suddenly to the ground.—Mr. Marreco replied that Mr. I. L. Bell, Mr. Pattinson, Mr. Daglish, Mr. Bowman, Dr. Lunge, Mr. Palmer and other well-known gentlemen had promised their assistance, and thought such an undertaking should be highly successful.—Mr. B. S. Proctor thought they should gather apparatus not readily attainable, such as the spectroscope and apparatus for the application of polarised light to chemical purposes, to insure the stability of the society. A small society meeting solely for the purpose of reading and discussing scientific papers was sure to die a natural death in a very short space of time.—Mr. John Pattinson thought the scheme was a very good one, and must be extremely useful. There were many methods of analysis which it would be very desirable to have uniformly practised, and the establishment of such a society might be the principle means for bringing about such a result.—Mr. E. J. J. Browell moved, in order to bring the matter fairly to an issue, that a society be at once formed for the objects named.—This was seconded by Mr. Pattinson, and carried unanimously.—A subscription of 10s. annually was suggested, and it was



decided that the meetings should be held monthly from October to March. The Committee appointed to carry out the necessary arrangements consists of Messrs. R. C. Clapham, W. H. Richardson, and Dr. Lünge (who are connected with separate chemical works, and so represent the manufacturing element); Messrs. Marreco, Browell, and Pattinson (representing pure science and technology); and Messrs. Brady, Procter, and Swan (representing pharmaceutical chemistry). Mr. Freire-Marreco has consented to act as Honorary Secretary.

#### DINNER TO MR. WATTS.

On the 15th ultimo a complimentary dinner was given at the Freemasons' Tavern to Mr. Henry Watts, F.R.S., by several of his friends and coadjutors, in celebration of the completion of his "Dictionary of Chemistry." The chair was taken by Dr. Odling, and there were also present Dr. Roseoe, Dr. Guthrie, Mr. Hanhart, Prof. Cary Foster, Dr. Atkinson, Mr. F. Field, Dr. H. Muller, Mr. David Forbes, Mr. A. P. Price, Dr. M. Foster, Dr. Russell, Dr. Gilbert, Dr. Redwood, and some others. Mr. De la Rue, Dr. Frankland, Mr. Abel, and Mr. Greville Williams, were unfortunately prevented from attending. In proposing the toast of the evening, the chairman remarked upon the advantages which accrued to chemists from their having compressed into five goodly volumes an accurate abstract of the immense mass of chemical knowledge which had gone on accumulating up to the present time, and he complimented Mr. Watts upon the thoroughness and conscientiousness with which this part of his labours had been performed—that he had not been content with giving crude abstracts of scarcely more crude material, but had produced a complete system of singularly well-digested abstracts bearing upon them the stamp of his own individuality. The chairman further observed that, in addition to its being a storehouse of carefully abstracted knowledge, the dictionary was, in addition, a collection of high class treatises upon all subjects of great chemical interest; and, although many of these treatises had been contributed by friends and associates of Mr. Watts, who had been glad to support him in his arduous undertaking, others of them, and these not the least meritorious, were the work of Mr. Watts himself, and gave evidence alike of his extensive knowledge and clear philosophical conception. The health of Mr. Watts was then drunk with much enthusiasm; other toasts followed, including "Success to the Messrs. Longmans," and the party broke up after an evening of much enjoyment.

#### GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE annual meetings of the Medical Council commenced on the 24th ult. at the College of Physicians. Dr. Burrows, F.R.S., the President of the Council, occupied the chair, and opened the proceedings by an address. The subjects discussed at the early meetings were medical education, colonial degrees, the constitution of the council, and cases of non-professional conduct. At the meeting held on the 1st instant, a resolution proposed by Dr. Rumsey, led to the following animated discussion on

##### THE AMENDED PHARMACY BILL.

Dr. RUMSEY moved, "That a committee be appointed to consider and report on the Bill for the regulation of Pharmacy now before Parliament, in order that if it should appear desirable the opinion of the General Medical Council may be represented by petition to Parliament, or by memorial to her Majesty's Ministers, before the said Bill shall become law." He was obliged to trouble the Council with some very strong objections to the Bill. In the first place, its operation was confined to Great Britain. Then, no provision was made for compelling chemists and druggists to use the Pharmacopœia. The Bill did not contain any provision for preventing registered chemists and druggists from converting themselves into a body of unqualified medical practitioners. The next defect was that no provision was made for the safe and proper exercise of their own particular functions of chemists and druggists. The last clause in the previous report was most explicit on

that point:—"The committee call attention to the fact that the Bill proposes to confer on the whole body of chemists and druggists the right of dispensing and selling medicines without any control on the part of the Government, except such as is exercised under the Pharmacy Acts, over registered pharmaceutical chemists." They submitted that the whole profession of pharmacy ought to be subjected to some control, but the present Bill provided no such control. In two particulars only were the Privy Council alluded to—as to their assent being requisite to the list of poisons published in the Bill, and to the qualifications of the persons to be appointed examiners. Neither of those provisions touched the point that there was no control over chemists and druggists as a body in the exercise of their functions. This was the only country in the world where some such control did not exist. Not only was the list of poisons a questionable one, but it omitted one of the most injurious substances now consumed in this country, to the great prejudice of the public health—namely, opium. Any amount of opium might be purchased under the proposed Act without the slightest restriction, as it could now, to the detriment of the lives of the people. Seeing from the reports of the medical officer of the Privy Council the number of poor miserable children who were poisoned whilst yet almost in their infancy, and the effects of opium on the population in general, they, as to some extent guardians of the public health, were bound to protest against such a piece of legislation. It did not even extend the provisions of the Arsenic Act, one of which was extremely important—namely, that every purchaser should give his name in writing, with a view to prove identity in case the poison should be used for an improper purpose. Then there was no evidence whatever of the qualification of those who were to go at once on the new register of chemists and druggists. On that point the committee were very explicit, stating that the promoters of the Bill proposed to admit on too easy terms into their Society pharmaceutical chemists and druggists not then belonging to it, the proposal being to admit all who offered themselves for examination, or produced a certificate from a qualified medical practitioner that they had been in the practice of dispensing medicines from the prescriptions of medical men before January 1st, 1866. The present Bill carried that most injurious and dangerous permission to a far greater extent than did the Bill of 1866, for it proposed to extend it to the commonest chemist and druggist throughout the whole of the country, men little better many of them than grocers, whilst some kept draper's shops. The danger which might be inflicted on the public by this measure was most serious, and one which they should protest against. They might not be able to obtain a proper security, but they might in some degree protect the public from the dangers to which this measure exposed them.

Dr. ACLAND seconded the motion.

Sir D. CORRIGAN pointed out that in Clause 2 there was a provision for including opium among the list of poisons.

Dr. LEET, as representing pharmacy in Ireland, did not approve of the proposed Bill extending to that country. He referred to a report of the Senate of the Queen's University of Ireland, which stated, "The practice of pharmacy is already provided for in Ireland by the Pharmacy Act of 1791. This Act has worked well, and carried out its objects, especially that of providing well-educated apothecaries for the public service. It therefore does not appear necessary to legislate for this department, neither does it seem important or desirable to alter the present state of the law." That would show the Council the condition of Pharmacy in Ireland, and under those circumstances it would not be desirable to transfer to that country the operation of a Bill of that nature, which would bring over a number of persons who had undergone no educational test whatever. He had no objection to a Pharmaceutical branch in Ireland, to take charge of the department under the direction of the Society, but he protested against the introduction of the Bill in its present form as fraught with the greatest mischief, not only to practitioners of pharmacy, but also to her Majesty's subjects.

Dr. ALEX. WOOD said he had from time to time read in the newspapers of the "Sale of Poisons Bill" passing through the House of Lords; but was not aware till that moment that it brought in by a side wind a proposal on the



part of the Pharmaceutical Society which had again and again been proposed, and as frequently thrown out by the profession. The Society had done a great deal for the advancement of pharmacy, and deserved every facility which could be given for carrying on that work; but it was quite another thing to ask to be incorporated into a profession. Dr. Leet's own position afforded an apt illustration of the dangers to which they might be subjected if this Bill became law. Dr. Leet was the representative of a training body in Ireland who made their money by the sale of drugs, and he had induced the Council to pass a sort of resolution which enabled the licentiates of that body to be regarded as equivalent to the licentiates of a College of Physicians, and those licenses were conferred upon applicants for the sum of 10s. The whole tendency of their legislature was towards free trade; but the Bill proposed to create a new guild or craft, and to give them exclusive privileges for carrying on a trade throughout the country, incorporating them in a way that would make them exceedingly dangerous to the licentiates of the bodies represented at that Council, through the counter practice carried on so largely at present, and which would probably be increased. He would support Dr. Rumsey's motion, and hoped the committee would be able to report during the present session.

Mr. COOPER also supported the motion, characterising the Bill as a most dangerous one.

Dr. A. SMITH protested against accepting a document emanating from the Queen's University as evidence of the condition of pharmacy in Ireland. In his opinion it had degenerated enormously since the passing of the Medical Act; and from a long residence in Dublin he knew something of its condition. The Apothecaries' Hall was a trading body, and had no school of pharmacy. There were many towns with a large population in which they could not get a prescription made up by a licentiate of Apothecaries. The Hall had a monopoly, and was not slow to exercise it. The most eminent pharmaceutical chemist in London could not go over to Ireland and open a shop to dispense and compound prescriptions, because the Hall would immediately prosecute him, and have him fined £20 for every prescription. That authority had been exercised in Dublin on three occasions within the last six months. He thought a duly-qualified dispensing chemist in England should be deemed capable of discharging the same functions in Ireland, especially those licensed by such a body as the Pharmaceutical Society, that had done so much to elevate the practice of pharmacy.

Sir D. CORRIGAN, referring to Dr. Leet's statement that the Senate of Queen's University pronounced a high eulogium on Apothecaries' Hall, said that was in the year 1855, three years prior to the passing of the Medical Act. He could confirm Dr. Smith's statement as to the scarcity of compounding chemists, for no pharmaceutical chemist, no matter how skilful he might be, was allowed to compound a prescription in Ireland without the license of the Apothecaries' Hall. This arose from the fact that in 1864 the apothecaries made an effort to raise themselves from the position of compounding chemists to that of practitioners, and the Council helped them. They then passed regulations that any man coming for the certificate of apothecary must have attended courses of lectures on chemistry, anatomy, physiology, demonstrations, dissection, botany, natural history, materia medica, therapeutics, midwifery, medical jurisprudence, and other subjects; but there was not a single word about pharmacy. He would not disturb the Apothecaries' Hall in their privileges, but the result was that any man who was able to go through that course of education would not settle down in a country town, or even in Dublin, to open a shop for compounding, but went off to the colonies, to the army and navy, or elsewhere. Within the last month one of the most distinguished chemists in the United Empire was obliged to shut up his shop under prosecution from the Apothecaries' Hall. He had been appealed to by members of the House of Lords as to whether they should extend the Act to Ireland, and had pointed out the difficulties attendant on such a course. He did not want to interfere with the power or privileges of the Hall in Ireland, and therefore simply proposed the insertion of this clause, which was in the hands of members of both Houses:—"That from and after the passing of this Act every person duly qualified and registered under this Act,

and thereby entitled to open shop as 'compounding chemist' in Great Britain, shall in like manner be entitled to open shop as compounding chemist in Ireland without being subject to any prosecution or penalty, notwithstanding any enactment to the contrary in the Apothecaries' Act of Ireland (1791)."

The motion was put and agreed to, the following members of the Council being appointed on the Committee:—Dr. Rumsey, Dr. Acland, Mr. Cooper, Dr. Alexander Wood, Sir D. Corrigan, and Dr. Leet.

It was moved by Dr. RUMSEY, seconded by Dr. ACLAND, and agreed to,—"That the Committee be authorised to communicate with the President and Council of the Pharmaceutical Society on the subject."

#### BRITISH PHARMACOPOEIA.

At the same meeting Dr. QUAIN moved,—"That the Treasurers be authorised to pay the sum of £50, voted by the Pharmacopœia Committee of 1867 to be paid to Dr. Redwood for his special and extra services in the preparation of the work, but omitted in the amount submitted for payment to the Council at its last session."

Mr. HARGRAVE seconded the resolution, which, after some discussion, was agreed to.

#### UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

ANNUAL MEETING, JULY 1.\*

THE Annual Meeting of this Society, in accordance with the advertisement convening it, took place at the rooms of the Society, 18, New Ormond-street, W.C., on Wednesday, the 1st of July, 1868. Henry Matthews, Esq., F.C.S., V.P., in the chair. The attendance was numerous.

The proceedings commenced by the Secretary reading the Annual Report and Statement of Accounts. The report showed that the two objects for which the Society was started were all but accomplished. The incorporation of the trade would be soon effected by means of the Poisons and Pharmacy Bill, which had passed the House of Lords, and the second reading in the House of Commons. The institution of the Benevolent Fund had remained in abeyance for the last two years, in consequence of the Pharmaceutical Society being influenced to throw open their own larger fund upon the liberal basis suggested by the United Society.

The report and statement of receipts and expenditure were cordially received and adopted.

The position of the Secretary was then discussed by the meeting, and from the resolutions, as recorded and confirmed in the minute book of the Society, it was found that, in recognition of his services, an annual meeting of the members had pledged themselves to obtain for Mr. Buott an appointment under the proposed Bill. This promise, although frequently repeated, had not been carried out, it being subsequently suggested that a Compensation Clause should be inserted in the Bill instead. When the time had arrived for putting this into the Bill, it was recommended by the Executive Committee that a Voluntary Compensation Fund should be started in lieu of the clause, which proposition had unfortunately been most disastrous to Mr. Buott, as it put a complete stop to a Testimonial Fund then in progress, and that not a single shilling had yet been paid on behalf of the Voluntary Compensation Fund.

The Committee acknowledged the hardship to Mr. Buott, and had on the 24th of April last unanimously passed a resolution, to which was affixed the signatures of the Committee, that "provided legal opinion affirmed that they could legally hand over to Mr. Buott the present balance of the Benevolent Fund, or any portion of it, as an equivalent to him for cash advanced to the Society, and due by it to him, that they would at once do so. The correctness of his claim being certified by the auditors, and adopted by the Committee, a statement of the case was drawn up, its correctness being agreed to by the Executive, which was duly laid before counsel,

\* As this Report reveals a crisis in the United Society, our readers ought to know that it has been drawn up by Mr. Buott, jun., and that we print it without submitting it to the Chairman of the meeting or to any of the gentlemen who have retired from the Society. It must, therefore, be taken as an *ex parte* statement. In another column, the President and leading members of the committee publish their resignation, and protest against the proceedings of the meeting.—ED. C. AND D.



who had given a written opinion to the effect that whatever doubt there might be against paying a contra claim out of the fund, the liability for which rather vested upon the Executive Committee and the donors individually, who, by the rules, were members of the Society; yet the Committee, as dispensers of the fund, could practically carry out their wishes by making "Mr. Buott a recipient of the fund, as a proper object of its bounty."

From questions asked by members present, it was elicited that, taking into consideration the present liabilities of the Society, the amount due to the Secretary was now more than the balance of the Benevolent Fund. It was also admitted that in consequence of the number of gentlemen who, thinking the Bill safe, had resigned their membership. It had, therefore, been left to Mr. Buott, for many weeks past, to almost entirely defray the current expenses of the Society for rent, printing, postage, etc., out of his own pocket.

The CHAIRMAN expressed his regret that Mr. Buott's case presented many difficulties, and stated that since the first counsel's opinion had been given, he had, at his own cost, obtained another opinion, which he would read, by which it would be seen that there were doubts whether Mr. Buott could be paid the amount due to him, and thus the Committee were in danger.

Mr. SHORTER (delegate) said that Mr. Buott having submitted the first case to the Committee, and obtained their agreement to it, it was hardly fair to him to have to carry the case any further without his knowledge. Had he been consulted, he would properly have objected to one of the leading questions to the second counsel, which was so framed as to secure the same doubtful answer as that of the first counsel, namely, power to pay the money as a debt due to him. If the Committee really wished to do justice to Mr. Buott, they should have repeated the question in the form put to the first counsel, so as to have confirmed the opinion so clearly expressed by him—that they had the legal power "to make him a recipient of the fund, as a proper object of its bounty." He thought that the Committee, in their fear against imaginary actions from donors (who could have no real ground against the truly charitable disposal of the fund, the more especially when the donors were made acquainted with the fact that they were individually responsible for contra claims), overlooked their real danger. Their Secretary had expended the whole of his means upon the faith of their protecting his interests, and, therefore, he would be obliged to look to them individually for payment, a liability against which there was no doubt, but which they seemed to ignore. If the Committee were prudent, and acted in accordance with the rules, they would accept the instructions of the members now assembled in annual meeting.

Mr. STANNARD said that he should propose a resolution which he hoped would have the support of the members present: it was—"That in consideration of Mr. Buott having been repeatedly promised compensation for the many sacrifices and the great services he has rendered to the chemists and druggists of this country, in bringing their claims before Parliament, and that as he devoted the whole of his means to the furtherance of this object, that by the authority of this annual meeting, Mr. Buott, the Secretary, do now and at once receive the balance of the Benevolent Fund, as a proper object of its benefit, being in accordance with counsel's opinion that the same may be done."

Mr. BETTY said that he thought it very unfair to the Executive Committee to endeavour to alarm them as to their personal liability. He had, with others, given time, counsel, and subscriptions, and it was ungracious that they should be told now to do what they were afraid they could not do. He had always acted as a friend to Mr. Buott, but they, as men of business, must protect themselves from any danger, and he certainly should oppose the resolution, and move as an amendment—"That all sums as signed for as under (form attached, freeing the officers of the Society from liability) be handed over to Mr. Buott out of the Benevolent Fund, and that no money from such fund be appropriated by him unless by virtue of such signatures of donors." This being duly seconded, was supported by Mr. BURN (delegate), who decidedly thought Mr. Betty's opinion should be adopted. This gentleman was followed by Mr. BELL, who held the same opinion.

Mr. HURST said that whatever difficulty was entailed upon

the Committee, it was a question of absolute ruin to the Secretary. He believed he was only doing justice to Mr. Betty and his supporters by saying that they were taking a course collectively that they would scorn to do in their individual capacity. Look at the facts. There had been a number of promises made to Mr. Buott, not one of which had been kept. If, as individuals, they had not approved these promises, they should long ago have retired from the Executive, on whom lay the obligation of carrying them out. The implicit reliance that the Secretary had placed upon their honour should have secured absolute good faith. The amendment was thoroughly impracticable. There were about 1,500 subscribers to the fund, as it now stood, with subscriptions as low as sixpence; a large number were dead, a larger number were persons whose addresses could not be found, while the largest subscribers, if asked the question, not knowing their responsibility as members for the time being for the contra claim, might be tempted to say that the money should be returned to them. The resolution, while doing some amount of justice to Mr. Buott, was, in fact, carrying into effect the charitable wishes of the donors to the fund by making him the recipient of its bounty. Could a more proper claimant be named? On whom would devolve the expense and endeavour to carry out the impracticable proposition of a direct appeal to the donors? They had a forcible illustration of such a general suggestion in the case of the promised Voluntary Compensation Fund to Mr. Buott. Everybody supported the suggestion. Subscriptions were promised. But what was everybody's business was nobody's business. Not a single shilling had been received! He felt strongly the injustice that the Secretary had suffered. He had gone over the minute books of the Society, and he found that nearly the whole of the sines of war had been provided by Mr. Buott by his exertions to procure membership fees, and extending the organisation of their Society throughout the length and breadth of the land. He would not for one moment depreciate the advantage of the counsel that the Secretary had been favoured with; but somewhat considerably more than this was required to gain the victory. In addition to the unremitting service rendered, he found that the Secretary had at various times, as he was now doing, advanced the funds, to keep the Society in action. Notes of thanks for this assistance had been almost as often recorded as promises of compensation. For all this devotion to the cause, he was threatened with a race of desertion from those who should have been the first to have supported him at the present time. The amendment was the only instrument left to bring positive ruin to Mr. Buott. It would form the last remaining picture to the transformation scenes relative to promises. He trusted the Society would be saved this great scandal.

A MEMBER said that it was admitted that they owed their Secretary money. If the amendment was not successful, how did the Executive propose to pay him? As to their fears against any ulterior action by the resolution being adopted, he would, for a commission of five per cent., now guarantee the Committee from any loss.

Mr. HEPELL regretted the somewhat personal tone that had been imported into the discussion. It was most desirable that the question should be discussed upon its merits.

Messrs. Ginner, Saph, Watterton, Greenwood, Storey, and other gentlemen, all supported the original motion.

The amendment was then put, and the Chairman said there were for the amendment, six; against it, twenty-six.

The CHAIRMAN then declared the meeting to be dissolved.

This, however, was protested against by the meeting, and the irregularity of allowing the amendment to be put, and refusing to take the vote on the original motion upon which the amendment was founded was admitted by the Chairman, who said that he should, however, resign the chair; but to show that he was not actuated by any antagonism to Mr. Buott, he should, as the second largest donor to the fund, declare that he would make no future opposition to the proposed grant, and that, moreover, he would give his cheque for ten guineas, his promised subscription to the Compensation Fund, if Mr. Buott, or any friend of his, would call upon him on the morrow.

Mr. MELLIN, life governor and donor, was then unanimously voted into the chair.

Mr. BETTY stated that his term of office expired that day, and that as his amendment had not been carried, he had no



other resource than to resign his membership with the Society. The gentlemen who voted with Mr. Betty did the same, and left the meeting.

The original motion, being duly seconded, was then put to the meeting, and carried unanimously; all the gentlemen then present (thirty-one) voting for it.

An alteration in the rules of the Society, in accordance with notice duly given, was agreed to.

The resignation of Mr. Betty, and of the gentlemen who had also resigned with him, were accepted, and the Secretary was authorised to reconstruct the Committee, and take such steps as he might deem expedient on behalf of the Society.

A vote of thanks to the Chairman closed the proceedings.

#### SPECIAL MEETING OF THE SHEFFIELD ASSOCIATION.

A special meeting of the Sheffield Association of Chemists and Druggists was held July 10, 1868, when the following resolutions were passed, and the Secretary requested to forward the same to the Secretary of the United Society, 18, New Ormond-street, London:—

1st. Proposed by Mr. Hudson, seconded by Mr. Newham—"Having heard of a resolution being passed at the meeting held July 3rd, at 18, New Ormond-street, London, whereby the Benevolent Fund was transferred to the Secretary, without the consent of the donors, thus acting (we think, illegally) in opposition to the spirit and intentions of such donors, we hereby enter our protest against such resolution being acted upon." Carried unanimously.

2nd. Proposed by Mr. Brown, seconded by Mr. Dobb—"That it is the opinion of this Association that any interference with the Benevolent Fund by the Executive, previous to the passing of the Amended Pharmacy Act, is uncalled for and premature." Carried unanimously.

3rd. Proposed by Mr. Barber, seconded by Mr. Watts—"That this Association considers that the Secretary has failed to perform that courtesy to the country members of the Executive which they have a right to demand, by not giving them due notice of the intention to hold the annual meeting. And we further give it as our opinion that the proceedings at the so-called annual meeting were irregular and illegal." Carried unanimously.

WILLIAM WARD, President.

ROBERT O. HUDDLESTONE, Hon. Sec.

#### LAW AND POLICE.

##### CHARGE OF THEFT AGAINST AN ASSISTANT.

At the Burslem Petty Sessions on the 24th ult., David Reed, senior assistant to Mr. Leicester, chemist and druggist, was charged with stealing 3s. in money, and a pot of extract of meat of the value of 2s. Prosecutor stated that having occasion to suspect the prisoner's honesty, he gave a person five marked shillings to spend in the shop. The man did so, but only two of the marked shillings were found in the till. Prosecutor sent for the superintendent, and in his presence prisoner produced the other three marked shillings. The pot of preserved meat was also found upon him, and this he admitted to be the prosecutor's property. Prisoner was remanded, in order that inquiries might be made respecting his previous career.

#### BANKRUPTCY.

J. T. HOLMES, HANLEY, CHEMIST.

Meeting for last examination and discharge, before Mr. Commissioner Sanders, at Birmingham, on the 6th inst., Mr. Hodgson appeared for the assignee, and Mr. Rowlands for bankrupt. Several accounts that had been ordered, not having been placed on the file, an application was made that the time should be extended for a fortnight, to enable the bankrupt, who was at present in a situation in Dublin, to furnish them. Order accordingly.

WILLIAM JOHN SHODDY OLOVER, WARWICK, SURGEON.

Meeting for the last examination and discharge of this bankrupt, on the 8th inst., before Mr. Commissioner Sanders, at Birmingham. Mr. Griffin appeared for the assignees,

and Mr. Rowlands for the bankrupt. An arrangement was in progress to pay the creditors a composition of 5s. in the pound, and the meeting was adjourned to the 27th inst. to permit of the completion of the settlement. Some time after the Commissioner had adjourned the sitting, the attention of the Court was drawn to the fact that the bankrupt was not present. Mr. Tarleton, junr., explained to his Honour that the bankrupt was under the impression that he should not have to attend that meeting. The Commissioner said he had understood the bankrupt was in Court, but as he was not, the meeting should be adjourned *sine die*; but the bankrupt would be at liberty to apply to come up when he pleased.

W. W. BARR, BRISTOL, DRUGGIST.

Last examination and discharge sitting under this fiat appointed, before Mr. Commissioner Hill, on the 29th ult.; but accounts not having been filed in consequence of the illness of bankrupt, the sitting was adjourned till the 25th of August.

W. HEPWORTH, REESTON, CHEMICAL AND NAPHTHA MANUFACTURER.

This bankrupt came up on last examination and discharge sitting, at the Nottingham Bankruptcy Court, before Mr. Commissioner Sanders, on the 30th ult. Mr. Belk appeared for the bankrupt, and Mr. Cockayne for a creditor. As the sales of the bankrupt's reversion and a policy had not been completed, the case was adjourned till the 28th July.

ROBERT TULLIDOE, EXETER.

This bankrupt, a chemist, druggist, and grocer, residing in North-street, Exeter, attended a meeting for choice of assignees, on the 30th ult., before Mr. Registrar King. The official assignee's statement showed that bankrupt owes to unsecured creditors £979 14s. 6d.; assets—good debts £133 7s. 3d.; doubtful £2 7s. 8d. The furniture, stock-in-trade, and other property, sold by the bankrupt's father, under the power of a bill of sale, given in May last, to secure a debt of £600. The effects were sold two days before the bankruptcy to a Mr. Vian for that £600. Cash handed to official assignee £17 6s. 6d.; cash handed to Mr. H. W. Hooper, bankrupt's solicitor, £16; policy of assurance on bankrupt's life, of little value, is held by a creditor: total amount of assets £164 13s. 1d. Mr. W. J. Rogers, commercial traveller, Bartholomew-terrace, was appointed assignee, and 13th of August fixed for last examination and discharge.

#### GOSSIP.

The Guardians of the Nottingham Union have accepted the tender of Messrs. Williams and Fitzhugh for the supply of drugs for the next three months for £60 7s. 9d.

The Leeds Board of Guardians have accepted the tender of Mr. Handcock, of Upperhead-row, for the supply of drugs for the next three months.

The tender of Mr. Morris, chemist and druggist, Friar-street, Worcester, has been accepted for the supply of drugs to the Worcester Union.

Mr. Joseph Gilman, junr., druggist, of Birmingham, took the first prize of £10 at the Midland Horse Show, on the 24th ult., with his pony "Multum in Parvo." The same splendid animal took the first prize at the show at the Agricultural Hall.

At the Midsummer Sessions of the North Riding of Yorkshire, held at Northallerton on the 30th ult., Mr. John Dickinson was appointed analytical chemist for Middlesborough.

#### TRADE FESTIVALS.

We are always pleased to record instances of liberality and good feeling on the part of employers towards those in their service, and feel especial pleasure in noticing the annual excursion of the men belonging to the Works of the Patent Plumbago Crucible Company at Battersea, which took place on Saturday, the 4th July. The excursionists left Battersea about 9 a.m., in three vans, attended by their



brass band, for the village of Hersham, near Walton-on-Thames. At the Waterman's Arms in that place a very substantial dinner had been provided by the company, to which about seventy persons sat down. From time immemorial this kind of entertainment has been called a "bean-feast," probably on the same principle as that upon which the attendant at a coachstand used to be called a "waterman," viz., "because he opened the Hackney coach doors." However, the total absence of the orthodox beans was amply compensated for by an abundant supply of other good things, to which we may be supposed, the guests did full justice. During the evening, the band of the company's workmen went very creditably through their performances on the village green, and a fair which was being held at the same time, added not a little to the enjoyment of the visitors. Few persons would have recognised in the well-dressed, well-conducted, and respectable-looking individuals before them, workmen who had been all the previous week begrimed with blacklead and charcoal. We sincerely hope the example of the Plumbago Crucible Company will be followed by numbers of other large firms during the remainder of the summer.

The annual excursion and dinner of the *employés* connected with the establishment of Messrs. Burgoyne, Burdidge, and Squire, 16, Coleman-street, took place on Saturday, the 11th inst. The whole of the party left town by an early train for Egham station. Amidst such delightful scenery it was an easy matter for a number of "city men" to find enjoyment. Some rambled on the banks of the Thames—others made their way into Windsor Forest, and a number engaged in the manly exercise of cricket. At two o'clock the company sat down to an excellent dinner provided at the Barleymow, Englefield Green. The usual toasts were drunk—a number of songs sung, and the afternoon passed merrily away, everyone appearing to thoroughly enjoy himself. The party returned to town by the last train evidently much gratified with the "day out," and declaring that this their seventh annual excursion was fully equal, if not better, than any of the previous years.

On Saturday the 4th July the *employés* of the firm of Lawson and Haydon, Perfumers, Strand, held their annual dinner at Buckhurst Hill. The afternoon was spent at cricket, and various other amusements, and in the evening songs and recitations were given by various members of the party. Among the numerous toasts that of "Prosperity to the Firm" was proposed by Mr. Adamson, who alluded to the kindness and courtesy they at all times received from their employers. Mr. Alfred Low and Mr. Haydon both returned thanks, and expressed the pleasure it afforded them to be present.

#### TRADE CHANGES.

F. G. Stoddart, chemist, the Grange, Edinburgh, has disposed of his Grass Market business to A. F. Macallum, chemist and veterinary surgeon.

Mr. John Hughes, of Middleton, chemist, has retired from business. He is succeeded by his nephew, Mr. John Roberts, late of the firm Raynor and Roberts, chemists, Radcliffe.

#### GAZETTE.

##### PARTNERSHIPS DISSOLVED.

BRADLEY and MILES, Greenwich, surgeons.  
DAVIDS and GIBSON, West Cowes, surgeons.  
LUNN and CARNLEY, Kingston-upon-Hull, surgeons.  
STUART and RILEY, Woolwich, surgeons.

##### BANKRUPTS.

BEST, ROBERT, Kingston-upon-Hull, chemist.  
COOMBER, JOHN, Great Suffolk-street, Southwark, chemist.  
COOTE, HOLMES, Princes-street, Hanover-square, surgeon.  
DE BRION, HENRY EDWARD FRANCIS, Bowley-street, Linchouse, doctor of medicine.  
ELMES, THOMAS, Bishops Lydeard, Somersetshire, doctor of medicine.  
FISHER, JOHN DEIGHTON, Halifax, chemist.  
GRUNBAUM, HERMANN OTTO ALBERT EMIEL, Aldgate, City, dentist and chiropodist.  
HAMPSON, JOHN DAVID CHARLES, Dorset-square, surgeon-dentist.  
HINE, GEORGE THOMAS ARROWSMITH, Gloucester-street, Fimlico, chemical manufacturer.  
NESS, WILLIAM, Durham, manufacturing chemist.

##### DECLARATION OF DIVIDENDS.

PRUST and JOHNS, Cardiff, chemists, 1s. 11d.  
WEST, M. T., Woolwich, surgeon, 4s. 10d.



#### UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—We beg to inform the members of the United Society of Chemists and Druggists, and its District Associations, through the medium of your journal, that we, the undersigned, late members of the Executive Committee of the Society, have resigned our membership of the Society; and that, furthermore, we protest against the resolution affecting the Benevolent Fund of the Society, which was passed at the so-called General Annual Meeting of the Society, held at 18, New Ormond-street, on Wednesday, 1st of July, our reasons for such resignation and protest being:—

1st. That in our opinion the meeting was not a General Meeting of the members of the Society, several members having received special notices of the meeting, whilst a large number of members had received no such notices.

2nd. That we believe that a meeting of members of the United Society, whether general or otherwise, has no power to dispose of any portion of the Benevolent Fund, and that no disposition of the fund can legally be made unless the consent of the donors to the fund be previously obtained.

(Signed), EDWARD P. HORNBY, late President U.S.C.D.  
HENRY MATTHEWS, 60, Gower-street, London, late past President U.S.C.D.  
S. C. BETTY, 1, Park-street, Gloucester-gate, Regent's-park, London.  
T. S. ANDERSON, 30, Duke-street, Manchester-square.  
JAMES CROTCH, 74, Edgeware-road.  
GEORGE FENTON, 28, Great Smith-street, S.W.  
HENRY COX, 44, Strutton Ground.  
HORATIO PASS, late V.P.U.S.C.D., 11, Spring-terrace, Wandsworth-road.  
HENRY HUGGIN HEPPLELL, 116, Tottenham-court-road.  
L. E. BEERE, Blackwall.  
JAMES BURN, President of the Hull Branch of the U.S.C.D.  
C. B. BELL, Hull, late V.P.U.S.C.D.  
FRETWELL HUDSON, Sheffield, late V.P.U.S.C.D.  
ROBERT O. HUDDLESTONE, Sheffield, late V. P. U.S.C.D.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—From what I have heard, I am prepared for communications to your journal deprecating of the Resolution of the Annual Meeting of the United Society of Chemists and Druggists to hand to me the balance of their Benevolent Fund.

I shall rely upon your impartiality for space in your next publication to answer those communications; meanwhile, please admit one or two hurried remarks.

I need not enumerate my successful efforts to procure a Bill for the incorporation of the trade. They are recorded by eulogies and thanks, by resolutions and by promises of reward in the history of the Society, although effaced from the memory of some who were loudest in their admiration and professedly grateful recognition of them.

It is only a short time ago that I applied the sponge to £1000 which the Society owed me, as estimated by the Executive Committee, and I was told that my generosity and self-sacrifice should never be forgotten.

In 1865, the Annual Meeting pledged itself to procure me the registrarship under the Bill, or compensation for the loss of it. The Bill is now virtually passed, but I have neither the office nor the compensation.

In March, this year, a meeting of delegates thought it right to insert a compensation clause in the Bill, but was diverted from that purpose by a declaration that the Pharmaceutical Council would not consent to it. They then enthusiastically adopted a Compensation Fund as a substitute for a Compensation Clause. It was promised that



the wholesale houses and leading firms should be canvassed, and the meeting consented to that proposition upon the understanding that it should be carried into effect without delay. That Compensation Fund is now a dead letter—not a single shilling having been collected.

Again, as there was no hope of either Compensation Fund or Compensation Clause, the Executive Committee ordered another debt owing to me for salary, rent, printing, &c., defrayed out of my pocket, to be paid out of the Benevolent Fund, and they all signed a paper to that effect.

Further, there being some doubt as to whether they could pay a debt out of the Benevolent Fund, they agreed to reward me for all I had suffered and done for the trade by giving me what they could not pay me; and I consented to receive from their charity what was due from their justice, as the only means of saving myself from being turned adrift now that my services may be no longer needed.

The Bill may now be said to be passed. One man comes forward and says no merit is due to Mr. Buott. Indeed he claims the merit for himself. Another admits that the Compensation Fund was a sham, it never being intended, except upon certain contingencies. These two are joined by others who, in the madness of party spirit, turn upon me, and as an excuse for desertion and violated promises, accuse me of opposing the Bill for which I have sacrificed every thing in life except my honour. Thus I am not only denied all merit, but I am held up as a culprit.

Now I will hold by my good name, and I demand of the Society a strict and impartial inquiry upon this—to them and to me—momentous question: Has Mr. Buott ever opposed the Pharmacy Bill? Give me a fair tribunal, and if I be pronounced guilty, I will forfeit all I have in the world, and hide my infamy in the grave; but if I be proved to be innocent, I ask, not even justice, but simply that my innocence may be established before the trade for whose benefit I have done and suffered so much!

I am, Sir, your obedient Servant,

CYRUS BUOTT, Sec.

Offices—20, New Ormond-street, W.C.,  
London, July 11th, 1868.

We have been requested to publish the subjoined correspondence:—

18, New Ormond-street, W.C.,  
July 7th, 1868.

SIR,—I have to-day read your letter addressed to the Secretary, and am very grieved to find how easily you are persuaded to take a violent part against a gentleman whose age, misfortunes, and acknowledged services to the trade should have induced very different treatment.

Will you deny—

1. That he was promised an appointment under the Pharmacy Bill? This promise not being fulfilled.

2. That he was promised a Compensation Clause in the Bill? This not being fulfilled.

3. That he was promised a Voluntary Compensation Fund, many amounts being subscribed? That not a single shilling has been yet received; and

4. That, therefore, the Executive Committee unanimously voted him the amount of the Benevolent Fund, provided legal advice showed they could legally do so; upon which counsel's opinion was taken upon a statement of the case, who declared in writing that whatever doubts there existed in making the fund liable for contra claims (instead of the Committee), that they could in reality carry out their promise by making him a recipient of it as a proper object of its bounty. That instead of this promise being fulfilled, other counsel's opinion was obtained, without the Secretary's knowledge or consent, which by raising the question upon the doubtful issue of contra claims, of course received a doubtful but confirmatory answer, as far as it went, of the first opinion; and in lieu of the promise, another proposition was made, "that the donors should be individually applied to," which is simply impracticable from the large number, say 1,500, some subscribing as low as sixpence. This failing, as it would undoubtedly do, the only resource left was to throw the Secretary and the promises up together.

The minute books record innumerable notices of his fidelity, energy, and sacrifices on behalf of your cause; and by a minute dated only as late as last month, it is certified by the auditors, and the accounts received and adopted by

the Committee, that for unpaid arrears of salary and cash advanced to the Society, nearly £500 is owing.

It is equally a fact that in the hour of the triumphantly carrying the Bill, it having nearly passed both Houses of Parliament, the Secretary is, and has been for many weeks past, left to provide out of his own pocket the cost of printing, postage, rent, and other necessary expenses.

You threaten law proceedings as a donor! Do you forget that I have your written promise in this capacity, that the fund should be awarded him, and that you pledged yourself to give every assistance to this being carried into effect? If legal action is taken, it must also be done in self-defence, and I shall know where to apply for a claim of about £200 for unpaid salary as the first Secretary of the Society, which claim is certified and agreed upon the minutes.

You throw doubts upon the Annual Meeting. Are you not aware that it was advertised for weeks previous (see the CHEMIST AND DRUGGIST, 15th of May, and 15th of June); that notices were sent out exactly as at all previous meetings; that the chairman signed the report and balance sheet of accounts as having been passed at the Annual Meeting; and that not a word of objection was heard until Mr. Betty found that his amendment was only supported by six out of a room full of members and donors?

If you are not aware of all this, censure those who have deceived you. Cry shame upon the bad faith thus displayed, and give proof that you love fair play and common justice.

I am, Sir, yours obediently;

MR. E. P. HORNBY.

C. F. BUOTT.

P.S.—Should there be any discussion upon this matter in your district, I depend upon your sense of honour that you will read this letter to the Sheffield Association, and I beg to intimate that you are at liberty to make it known to any one you think proper.

Attercliffe, Sheffield, July 10th, 1868.

SIR,—Your communication, dated the 7th, came to hand, and in reply to question 1, I may state that however much I desired the fulfilment of my wishes regarding the obtaining an appointment for the Secretary under the Pharmacy Bill, as the Pharmaceutical Society would not entertain the idea, my good intentions were powerless; and to have thrown over the objects for which the Society was established, viz., Amalgamation, would simply have been folly.

2. As regards the Compensation Clause, not only the Executive, but nearly every individual, was desirous, yea anxious, that such a clause should be introduced into the Bill; but after due discussion, at a very full meeting, the impracticability of such intention was so forcibly expressed, that a large majority voted against the introduction of the clause.

3. As regards the Voluntary Compensation Fund, I may safely assert that the Secretary's proceedings have caused the failure, he having lost both the sympathy of the members and non-members at large.

4. Not having attended on the Executive Meetings, I am unable to answer your remarks respecting the disposal of the Benevolent Fund so fully as I should like, but will repeat my views on the question, viz.: providing the sanction of the donors had been obtained, no one would more gladly or willingly have voted the money to the Secretary than myself. As regards making the Secretary a recipient; that he is a proper object of its bounty, I refute; and according to the rendering of your own counsel's opinion, which implies a doubt respecting the legality of voting the fund to other purposes than originally intended, I consider that to sail so close to the wind is dangerous, and the voting of the Benevolent Fund to the Secretary on July 1st in the face of this doubt and protest, will lead to much trouble, for which no one will have so much cause for regret as the Secretary himself.

Touching the obtaining counsel's opinion without the Secretary's knowledge and consent; this is a piece of presumption I hardly gave you credit of assuming; and I hesitate not to say that it is this presumption on the Secretary's part which has ostranged from time to time his best friends.

The impracticability of obtaining by application the consent of the donors is groundless; and had you used the same energy in this respect as you have for less deserving



objects, I have every reason to believe you would have met with pleasant success.

The minute book no doubt contains many resolutions confirmatory of the Secretary's fidelity to the cause; and as regards the Auditors' Reports adopted by the Committee, I am unable to make any observations for want of knowledge.

I acknowledge the triumph in carrying the Bill nearly through both Houses of Parliament; but had not firm and determined counsel and resolutions been exercised, we should have had but little cause for rejoicing. Therefore I say that the credit of such triumph is not due to the Secretary, but to the great unanimity of expression from all parts of the kingdom, desiring the amalgamation with the Pharmaceutical Society, as portrayed in the Amended Pharmacy Bill.

I own myself not surprised at the Associations not sending their contributions, thus throwing, as you say, the providing the cost of printing, etc., on the Secretary, when I consider how nearly the Bill was jeopardised by his unwise proceedings; and the opinions of the Northern Associations have been, that to send funds to New Ormond-street in order to do battle to their own interests was more than they could swallow.

I am not aware of having written you, as a donor or otherwise, to have the Benevolent Fund voted away, I think, illegally; but I may have promised you my support to obtain it for the Secretary, after securing the consent of the donors; and I would still advocate the Secretary having it, only let it be done in a proper legal manner; and I hesitate not to say that should the Benevolent Fund be applied to other uses otherwise than intended by the donors (unless by their consent) legal proceedings will be issued to stay such application of the Fund.

I have no doubt the different Executives will know how to meet your extraordinary claims, and your knowing where to apply seems fortunate.

As regards the Annual Meeting, no one knows better than yourself respecting it. Suffice it to say, that you apparently secured the object you intended; but whether it will be found an advantage time will show. All well-wishers for the Secretary and the Society cannot do otherwise than regret that the advice and counsel tendered by the Chairman, H. Matthews, Esq., and others, was not attended to.

You have failed to point out wherein you have been deceived or treated in bad faith, and for one to cry shame against those who would uphold the dignity of law, honour, and justice, is hardly consistent with a sense of what is right.

Your wish that your letter should be read before the Sheffield Association has been fulfilled, and you may gather the opinion of the meeting by the resolutions adopted.

I have now replied to your queries and remarks as well as I am able; and as you intimate that I may make use of your letter as I think proper, I purpose sending it and a copy of this reply to the editor of the CHEMIST AND DRUGGIST, so that the country members and all others concerned may learn fully the points at issue, and realize the position of the Society.

In conclusion, I can now only express my regret that circumstances should have arisen to call forth my resignation. But upon looking back on my career, I can truly say that I have advocated those principles of equity and justice which have led to the whole of the chemists and druggists in the United Kingdom being recognised under the new Pharmacy Bill, and shall retire into quiet life, feeling assured that having nearly realized the consummation for which I joined the United Society, I shall take with me the esteem of many friends, numbering the Secretary and yourself amongst them.

Yours truly,  
E. P. HORNBY.

MR. C. F. BUOTT.

18, New Ormond-street, W.C.,  
London, July 13th, 1868.

Sir,—I am in receipt of yours of 10th inst., and note that in reply to my question No. 1, you say that however you desired the fulfilment of your wishes regarding an appointment for the Secretary under the Pharmacy Bill, yet as the Pharmaceutical Society refused to entertain it, your own wishes were rendered powerless.

Permit me to remind you that a pledge given to the Secretary at our Annual Meeting of the Society is an engagement of a more binding character than to be disposed of by an individual and irregular application to the Pharmaceutical Society, which of itself was calculated to encourage a refusal. The resolution was an agreement with the Secretary, and an instruction for the Executive Committee to carry out. The real difference between the two Societies on this matter is, that the Council of the Pharmaceutical Society have very creditably stood by their Secretary, and secured an appointment for him without promising it, while the Executive of the United Society, having solemnly promised a similar thing, did not do it.

The promise of a Compensation Clause was made in order to avoid any political difference, and as such was cordially accepted by the Secretary.

You say that everybody "was desirous, yea anxious, that such clause should be introduced," but you omit to show how this anxiety was evinced. Allow me to do so. When the time arrived for adding the clause to the Bill, a minority of the Executive suddenly gave notice of a Committee Meeting, anticipating a short attendance, but found that the major portion of the gentlemen who came insisted that good faith should be kept with the Secretary. This being the case, it was contrived that the conference with the Pharmaceutical Society should come off within fourteen hours afterwards, so managing that the notices to those gentlemen who were friendly to the secretary could not possibly be delivered until the conference was over. The extreme anxiety to introduce the Compensation Clause was shown in a very curious manner at the conference, as every gentleman then present (with one exception and myself) not only refused to support the resolution carried at their own Committee Meeting, but spoke against it. Let me here do justice to the Pharmaceutical Council. I believe that had they known of these proceedings amongst our own Executive, they would, like gentlemen, have scorned to have taken any advantage.

The Voluntary Compensation Fund was proposed to allay the indignation of those gentlemen who deemed that the Secretary was ill-treated, and was formally adopted four months ago.

You say that the failure of this is attributable to the proceedings of the Secretary. This is a most unwarrantable assertion, as you cannot name since this one single act of the Secretary that could in any way influence it.

With regard to No. 4 question, you frankly avow that you know little about it. In addition to what I have informed you, let me tell you that this undertaking to transfer the Benevolent Fund to the benefit of the Secretary emanated from, and is supported by, its bearing the signatures of every one of the gentlemen who now repudiate it!

You regret that the advice of the Chairman, the mover of the amendment, and others, were not attended to. A little more consistency from the last gentleman, who has hitherto opposed the fulfilment of every promise made to the Secretary, would have been of great influence. I have in my possession a letter bearing date 12th April, 1867, wherein he states, in order to soothe the Secretary for opposition to a previous promise, that it is most desirable that the transfer of the Benevolent Fund should be decided by a vote taken at an Annual meeting!

You again allude to law proceedings for the purpose of setting aside the decision of the Annual Meeting. Let it be so. The Secretary will have the advantage of a fair tribunal. It will then be proved that one or two in our Society were more anxious to obtain the patronage of the Pharmaceutical Society than to secure certain conditions necessary for the social and vested interests of the trade. It will then be seen that the Secretary, by his firmness at an early stage, obtained proper attention to these conditions, all of which are now secured in the present Bill. For this he has been denounced as an obstructive. He has suffered this slander in silence. He has seen promise after promise for payment of money due to him broken, and he will rely that the law will prevent him being made a ruined man, by reversing the decision of those gentlemen who are more anxious that the Secretary shall have justice, than that the fund be ultimately given to the Pharmaceutical Society.

I am, Sir, yours obediently,

MR. E. P. HORNBY.

C F. BUOTT.



TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR.—It is with much pleasure that I have this morning learnt that an act of justice was done to Mr. Buott, at the meeting of the United Society of Chemists and Druggists, held on the 1st inst. I consider that, as a body, we have behaved very shabbily to that gentleman; and I greatly grieve to hear that the public appeal made on his behalf has failed. Sure am I that if any man had so devotedly and successfully laboured for a body of operative carpenters, or stonemasons, or cotton-spinners, as Mr. Buott has for us, he would not have received the scurvy treatment at their hands which Mr. Buott has received at ours.

At last, however, I rejoice to hear of some step which means even the semblance of justice to him. If any attempt be made to reverse the decision of the meeting referred to, I trust that our members will recollect that the most benevolent thing which, as a body, we can do, will be to do justice to Mr. Buott; and that the greatest injustice to the Society we can commit is injustice to him. Praying that the dear old man may yet be able to gather the fruits of his toil,

I remain, dear Sir, faithfully yours,  
Manchester, July 8th, 1868. J. T. SLUGG, F.R.A.S.

#### ATTEMPTED SUICIDE IN A CHEMIST'S SHOP.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

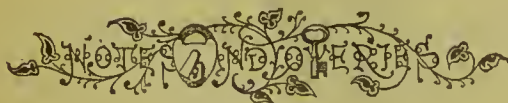
SIR.—The enclosed statement was made before the South-wark Police Magistrate, on the 9th inst.

"Mr. Rackham said that on the previous afternoon, about three o'clock, the prisoner came into his shop and requested to be supplied with some laudanum, handing him a small phial to put it in. He said he required it for the toothache. Witness only gave him a drachm, the largest quantity allowed by law."

Many like myself are ignorant of any law restricting the sale of laudanum to 5j. According to Schedule A. of the Poisons Bill now passing through committee, laudanum is not considered a poison. Is there any existing law which enforces that prohibition?

Yours truly,  
CHEMIST.

[There is no restriction on the sale of opium and its preparations.—Ed. C. & D.]



GLYCERINE SOLUTIONS.—An American pharmacologist, referring to the use of glycerine as a solvent for medicinal substances, gives the following useful list of solubilities:—Sulphur requires 2,000 parts of glycerine; iodine, 100 parts; red iodide of mercury, 340 parts; corrosive sublimate, 14 parts; sulphate of quinine, 48 parts; tannin, 6 parts; veratrina, 96 parts; atropia, 50 parts; hydrochlorate of morphia, 19 parts; tartar emetic, 30 parts; iodide of sulphur, 60 parts; iodide of potassium, 3 parts; sulphide of potassium, 10 parts.

DOVER'S POWDER.—It is proposed, says the *Pacific Medical Journal*, to substitute the chlorate for the sulphate of potash in the preparation of Dover's powder, for what purpose we are not informed. The nitrate has been much used instead of the sulphate, and some practitioners have entirely discarded the old formula in favour of the nitrate.

VAGINAL SUPPOSITORIES.—Dr. Greenhalgh, of St. Bartholomew's Hospital, recommends, as the most efficient mode of relieving the sickness of pregnancy, the introduction of a grain to a grain and a half of morphia, into the vagina, by means of a suppository.

BISMUTH IN DIARRHŒA.—The editor of the *Philadelphia Medical and Surgical Reporter* gives the following advice to a correspondent:—"In case of chronic diarrhœa in a child, which has been so obstinate and resisted all treatment, we would suggest that you treat with large doses of subnitrate of bismuth, commencing with half an ounce a day and increasing one drachm daily until one ounce a day is taken. This has succeeded in some remarkably resistant instances."

A TOOTH FOR AN EYE.—Dr. De Witt, of Illinois (*American Journal Medical Sciences*), relates a case of blindness of right eye enduring for twelve years, and removed speedily by the extraction of the first bicuspid of the upper jaw. The tooth was carious, and its interior was filled with pus. The sight of the eye was completely restored.

#### Varia.

BEEES SWARMING IN A CHEMIST'S SHOP.—On the 4th inst., the assistants in the shop of Mr. Pennington, druggist, Worksop, Notts., were surprised to see a quantity of bees with their queen fly into the shop. Making the circuit of the shop several times, the queen bee alighted in the window, followed by her attendants. After a lapse of time, they were removed to more suitable quarters.

BIRMINGHAM WORKHOUSE CONTRACTS.—At the meeting of the Guardians for selecting contracts on the 17th ult., Mr. G. Baker in the chair, there was only one tender for dry-saltries, that of M. J. E. Adams, Whittall-street, viz.:—Oak varnish, 7s. 6d. per gallon; boiled oil, 3s. 2d. per gallon; lamp oil, 3s. 4d. per gallon; shoe oil, 3s. per gallon; linseed oil, 2s. 11d. per gallon; olive oil, 6s. per gallon; turpentine 2s. 6d. per gallon; best white lead, 27s. 6d. per cwt.; red lead, 24s. per cwt.; yellow ochre, 16s. per cwt.; Venetian red, 16s. per cwt.; brown umber, 3d. per lb.; chrome yellow, 1s. per lb.; lime blue, 26s. per cwt.; roll brimstone, 11s. per cwt.; patent driers, 17s. per cwt.; glue 44s. per cwt.; pitch 18s. per cwt.; putty, 8s. per cwt.; alum, 8s. 6d. per cwt.; glass-paper, 12s. 6d. per ream; black lead (pure lump), 22s. per cwt.; soft soap, 2½d. per lb.; whiting, 38s. per ton; Bath bricks, 6s. 6d. per 100; black japan, 8s. per gallon; Russian tallow, 46s. 6d. per cwt.

A LONG-LIVED OPIUM EATER.—The *Philadelphia Medical and Surgical Reporter* is responsible for this statement:—Capt. Fredine Lahrbush celebrated his 102nd birthday in New York on the 9th of March. He was born in London in 1766, and served many years as captain of the British Sixteenth Rifles. He was once left for dead on the battle field. For rheumatic pains brought on by exposure in the field, he was compelled to resort to opium. From a dose of a grain he gradually increased to seventy-five grains, which he took regularly at midnight for many years. At no time for many years has he taken less than twenty-four grains. On one occasion he took one hundred and fifty grains, and on ship-board, his opium having given out, he substituted a half-pint of laudanum.

SPECTRUM OF A COMET.—Mr. Huggins has recently communicated to the Royal Society some observations of the spectrum of the comet discovered on the 13th of June by Winnecke, which appear to reveal the true nature of cometary matter. The spectrum of this comet is resolved by the spectroscopo into three broad, bright bands, which agree in position on the spectrum, and in relative brightness with the three bright bands, of which the spectrum of carbon consists, when an indication spark is taken in olefiant gas. The very close resemblance of these spectra, which was ascertained by the direct comparison in the instrument of the spectrum of the comet with that of the indication spark in a current of olefiant gas, necessarily suggests the identity of the substance by which, in both cases, the light was emitted. The lines of hydrogen were not present in the spectrum of the comet. These observations would appear to show that the substance of which this comet consists is carbon.—*Athenæum*.



ON THE EXALTED CONDITION OF THE PERCEPTIVE FACULTIES,  
AND THE INSIGHT WHICH SOME INDIVIDUALS EXHIBIT IN  
PENETRATING THE THOUGHTS AND MOTIVES OF OTHERS.

A VERY interesting question, indicated by the title of this paper, presents itself to the consideration of the psychologist and the physician.

Cases of the kind may be comparatively rare, but the supposed rarity of this mental phenomenon may be due to the fact that it is frequently misinterpreted, and perhaps in some cases its importance is altogether overlooked.

The subtle questions which belong to physical phenomena must of necessity partake of a speculative character in the hands of the philosophic inquirer; the tendency of the day is to prefer facts to theories; but in this case we cannot ignore theory; and it must be remembered that "theories become facts in the hands of experience." If we obstinately refused all speculative research, especially in the regions of mental philosophy, discovery would be at a standstill, and little if any progress would be effected in psychological science, or indeed in any department of abstruse investigation.

These introductory remarks will explain, and may perhaps excuse, the indeterminate character of the views set forth in this brief paper.

Cases occasionally come under observation in which a remarkable shrewdness is manifested in patients as regards the motives and thoughts of other persons. Medical writers who have remarked upon this peculiarity regard it as a symptom of disordered intellect; but it may be worth while considering whether this peculiar manifestation may not be the evidence of an unusual development of the perceptive faculty,—a cause of apparent eccentricity, and not a symptom of actual mental disorder. Although this extraordinary power of divining character may exist in persons decidedly insane, or in those who are peculiarly susceptible of impressions which ultimately lead to insanity, yet it is the design of this paper to point out that it is not necessarily a sign of madness; on the contrary, it may be the one sound faculty saved from the mental wreck, the one gleam of intellectual light shining out from the darkness around.

I will pause here for a moment to offer a few remarks upon the treatment of the insane generally. "There is a strong tendency at the present day to ignore the physical constituents of insanity altogether; to regard it as a mere physical disease, having a physical cause, and to be treated by physical means. That insanity is really a physical disorder cannot be doubted, but that it may originate in moral causes and be combated by moral means there can be no question." It is true that "moral treatment" has been introduced into asylums for the insane of late years; but "it consists in clumsily operating upon masses of minds by the same class of instruments, which are almost indiscriminately applied, and are sometimes as pernicious as beneficial. What we want is a keener insight into mental changes; a kindlier sympathy with feelings which, though altered and perverted, are yet real and acute; a wider comprehension of their origin and bearings, and a more individual system of dealing with them."

If all this is so important in the treatment of the actually insane—and no one can deny that it is so—how desirable it seems that the same delicacy and discrimination of treatment should be brought to bear upon persons who only yet exhibit some "eccentricity," so called—often regarded by superficial observers as a sign of mental aberration, but which may be nothing more than originality of mind, associated with a certain independence and individuality of character. These conditions, however, in highly sensitive and delicately organised natures, may develop into psychical mischief in the hands of ignorant and injudicious friends and advisers.

It is to be feared that great injustice (and often irreparable wrong) is inflicted upon those individuals whose exceptional faculties place them, as it were, above the sympathy and appreciation of ordinary minds. The power they possess of perceiving and penetrating the thoughts and motives of those with whom they associate naturally causes them to be regarded as suspicious, faneiful, and "eccentric," which term is often made to do duty for any other word meaning insanity.

The following remarks so well express this view of the

subject that I cannot do better than give the author's own words:—"Nothing can more clearly illustrate the materialism of the age than the prevalent disposition to ascribe all psychical phenomena to a disordered action of the bodily organs; and all those powers that indicate in their development the supremacy of the spirit over the flesh are regarded as evidence of vital or mental derangement!"

Some remarkable lunacy cases which have lately been made the subject of legal proceedings have attracted public attention, and caused the question to be raised as to "WHAT IS MADNESS?" We may indeed ask ourselves very seriously what constitutes insanity. I do not allude now to criminal madness, although that question is a painfully interesting and most important one to the medical profession in these days; but the special subject of inquiry which it is the purpose of this paper to propose is this,—how far that remarkable faculty which has been described, viz., the power of perceiving and penetrating the thoughts and motives of others, is compatible with a sound intellect and a healthy tone of mind.

It has been admitted that such cases may be comparatively rare, but there is no doubt that they are frequent enough to present a very interesting and useful subject for the study of the medical profession. Persons so gifted are highly susceptible and morbidly sensible. With such natures sympathy would do wonders. It might at the outset prevent the invasion of disorder, and it might, when unhappily mischief sets in, prove the best remedy; but no ordinary sympathy would avail; it must read the mind and go deep into the heart to effect any real good. It is worth trying, and if successful worth recording, for the benefit of suffering humanity.

In a clever book written a few years ago, it is told of a physician who had the superintendence of a lunatic asylum that he was a great favourite with his patients, very successful in dealing with them, and himself a monomaniac. Another physician similarly circumstanced (Dr. Jessen, I believe) is said to be greatly interested in his patients, preferring their society to that of ordinary people; and he considers that mad people, as a rule, possess more mind and character than many sane persons.

Would it not be well for our fellow-creatures who are afflicted with insanity if there were more "mad doctors" like those just described?

#### FOOD FOR THE PEOPLE.

The Society of Arts has had a committee sitting throughout the year, which has received evidence from a great number of persons interested, commercially, scientifically, and philanthropically, in the alimentation of the people. The summary of their year's proceedings includes an energetic recommendation to diffuse better information amongst cottagers, farmers, and others, as to the ways of profitably raising poultry for the markets. They think much benefit to the country may be derived from the formation of a piscicultural committee. The prospects of bringing cheap and satisfactory supplies of fresh meat from distant countries are not much brighter than before, unless Mort's Australian plan of refrigeration in vacuum chambers should prove commercially successful. Something is to be done, on the recommendation of Mr. Berkeley, to diffuse useful information concerning "the edible character of large classes of mushrooms of which no use is made now in this country." We look forward to such a proceeding with apprehension, and doubt the possibility of educating the people generally to select the edible and reject the very similar poisonous varieties. The preserved milk from Zurich receives justly honourable mention. In cooking there is nothing more notable in the report than the account of Captain Warren's jacketed steam vessels and the Norwegian self-cooking apparatus, two excellent apparatuses.

#### OUR ANCESTORS.

Were they pigmies, or giants, apparent apes, or possible philosophers? Have we improved upon their structure? or are we physically degenerate? Strangely enough, this question of fact is still at issue. M. Lartet, at the last session of the Société des Savantes, gave an account of his scientific explorations in Dordogne, and of the bones, in-



cluding three crania, which he examined, and of which the age is fixed as of the earliest quaternary period—the age of the mammoth. He dwells on the remarkable length and prodigious strength of the bones of the limbs. With this, the crania are remarkably large; and the brains which filled these capacious cases must perforce have been of considerable size. These skulls, he adds, are far from presenting the characters of inferiority which the school of “development” would attribute to our ancestors.

## ANILINE.

Anilino poisoning can easily be recognised as follows:—The contents of the stomach of the poisoned person are macerated with water containing a little sulphuric acid. The mass thus obtained is distilled, after mixing with an excess of potash solution. The distillate is carefully collected, and after the addition of a little sulphuric acid, is evaporated. If anilino be present, at the top of the solution where its level touches the vessel, a purple or red margin is found; 1-2000th grain of anilino can be well recognised in this manner by evaporating in a platinum vessel which is connected with the positive pole of a galvanic battery, the negative electrode being in the fluid. The nascent oxygen at the positive pole oxidises the anilino present, and produces coloured compounds. It has often been observed by anilino manufacturers that the workmen not only suffer from the use of arsenic, but also from that of anilino, especially when they work in apartments where anilino vapours are mixed with steam.



## CHEMICALS.

IN the chemical market there has been little business done of late. The alterations in prices have been comparatively few, and these have been in favour of the buyer.

## DRUGS.

The quotations for drugs differ little from those given last month. At the last public auctions a considerable quantity of ALOES was offered, and the price was consequently slightly depressed. COPAIBA was also obtainable on easier terms. CALUMBA-ROOT and the better qualities of RHUBARB realised higher prices.

## OILS.

LINSEED, though in limited supply, has been dull at £32 to £32 5s. RAPE has lately been in good demand for present delivery, and £33 5s. to £33 10s. has been paid for English brown, while some amount of business has been done for the last four months at £34 5s. to £34 10s., and at £35 10s. for January to April next year. Last week Refined COTTON was sold at lower prices, or at £37 10s. up to £38 10s. for spot and £38 10s. to £39 forward. The market for OLIVE has continued quiet, and 20 tuns Malaga at £63 is the only sale reported. Prices of COCOANUT have been well supported at £53 Cochin and at £51 Ceylon on the spot, but business has been done in the former for June shipment at £52 10s. 85 casks Zanzibar sold by auction at £52 5s., one lot £52. PALM OIL last week ruled at £39 10s. to £40 for fine Lagos, the latter price being now demanded. 97 casks Sierra Leone sold in public sale, inferior to fair at £35 to £38. Crude SPERM remains at £95 without transactions. WHALE is in fair demand at £34 to £36 as in quality. PALO SEAL offers at £36, and Cod at £39. East India Fish Oil is obtainable at £31.

PETROLEUM has lately met an improved demand, and quotations are higher, 1s. 6d. being now demanded for s.w. American Refined on the spot and 1s. 7d. for the last four months. At the close, however, the market was rather weaker. 200 barrels NAPHTHA have been sold at 1s. Our stock of Refined is 33,163 barrels, and the deliveries last week were 780 barrels, against 46,670 barrels, and 790 barrels respectively corresponding week last year.

## Monthly Statement

Of the STOCKS, LANDINGS, and DELIVERIES of the following Goods at the PORT of LONDON, from Jan. 1 to April 30, 1868 and 1867.

	Stock June 30.		Landings.		Deliveries	
	1868.	1867.	1868.	1867.	1868.	1867.
Aloes .... cases	2466	2746	1231	1883	1985	2544
kegs	79	153	—	67	33	96
gourds	894	536	—	471	889	967
Aniseed, Star ..... chests	614	485	450	136	170	228
Arrowroot ..... casks	15627	12634	7376	7946	4435	4746
boxes and tins	21889	21637	10102	9726	7321	12528
Balsam ..... casks, &c.	297	322	294	413	246	400
Bark, Medicinal, casks and cases	320	375	119	263	105	164
serons, &c.	8089	9941	10171	5700	10847	8184
Bark, Tanners..... tons	111	150	551	156	545	169
Borax ..... packages	83	81	2	398	10	426
Beeswax ..... bales and serons	237	208	223	170	233	45
casks and cases	772	1978	715	2934	1348	2454
cakes	326	2025	1872	1960	3123	1455
Brimstone..... tons	200	759	—	—	—	—
Camphor ..... packages	2528	3865	2740	2974	2107	1316
Cardanoms ..... chests	207	210	317	234	200	257
Cochineal—						
Honduras ..... serons	2052	600	599	2410	1962	2535
Mexican ..... "	755	98	812	177	737	271
Teneriffe ..... "	4844	3852	9750	7713	9987	8123
Coculus Indicus ..... bags, &c.	925	804	62	—	127	—
Colombo root ..... packages	1895	2720	89	1639	526	541
Cream of Tartar..... casks	150	362	150	219	265	345
Cubebs ..... bags	1673	1327	504	272	115	689
Dragonsblood ..... chests	94	77	80	26	92	59
Galls, E. I. .... casks and cases	2594	2437	4516	3859	2890	3573
Mediterranean ..... sacks	15	91	31	51	56	34
Gun—						
Ammoniac ..... packages	199	227	35	26	23	23
Animi and Copal .. "	1423	2059	2023	1409	2059	2921
Arabic, Barbary .... "	36	107	196	209	320	419
Turkey ..... "	77	232	45	34	52	90
East India ..... "	2129	1810	3857	2504	2784	1653
Assafetida ..... "	116	103	174	4	153	104
Benjamin ..... "	862	756	759	751	673	816
Dammar ..... "	955	992	213	243	373	217
Galbanum ..... "	1	1	6	3	11	2
Gamboge ..... "	202	85	324	84	195	79
Guaiacum ..... "	112	65	53	79	55	73
Kino ..... "	224	20	218	4	93	12
Kowrio ..... tons	1603	1466	1075	1389	732	1186
Mastic ..... packages	204	288	2	164	31	62
Myrrh, E. I. .... "	100	45	196	34	113	50
Olibanum ..... "	2398	2975	3045	4265	1847	3369
Sandarac ..... "	155	265	419	047	403	525
Senegal ..... tons	78	53	43	33	35	27
Tragacanth ..... packages	28	18	16	2	26	8
Ipocacuamba .... casks and bags	174	129	221	202	174	209
Jalap ..... bales	489	253	401	118	162	123
Lac-Dye ..... chests	2571	3971	2061	1766	3075	2852
Nux Vomica..... packages	342	1494	626	1951	632	1307
Oil—						
Castor ..... casks	89	83	12	17	0	37
cases	248	461	870	772	1049	968
Palm ..... dippers and tins	15655	5408	33207	17584	22180	18992
Cocoanut ..... tons	495	437	3099	1755	3256	2506
Olive ..... casks, &c.	3350	5104	5292	3851	5174	4861
Aniseed ..... cans	1436	2059	2412	3100	2651	3150
Cassia ..... chests	571	1010	1069	433	827	696
Opium ..... chests, &c.	1892	1566	1126	596	719	801
Rhubarb ..... chests..	234	158	—	—	no retrn	—
Safflower—	1098	715	1615	818	1124	1025
Bengal ..... bales	1245	1949	1599	1942	2039	2202
Bombay ..... "	83	117	44	—	57	84
Saffron ..... packages	10	10	1	—	1	—
Sarsaparilla ..... bales	233	674	729	1053	832	1327
Senna ..... bales, &c.	2505	2747	2084	2552	1821	1612
Shellac ..... chests, &c.	9821	12943	6417	5622	8722	8926
Sticklac ..... "	2232	3444	630	156	1202	1799
Terra Japonica—						
Gambier ..... tons	3782	2286	7901	4649	5607	3745
Turmeric ..... "	449	441	911	339	887	621
Vermilion..... chests, &c.	552	539	310	674	559	575
	44	126	—	158	57	122



## Monthly Price Current.

[The prices quoted in the following list are those actually obtained in Mining-lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.]

CHEMICALS.	1868.			1867.		
	s.	d.	to	s.	d.	to
<b>ACIDS—</b>						
Acetic .....per lb.	0	4	0 0	0	4	0 0
Arsenious (see Arsenic)						
Citric .....per lb.	2	6	2 7	1	10½	1 10½
Nitric ..... "	0	5	0 5½	0	5	0 5½
Oxalic ..... "	0	8	0 8½	0	10	0 0
Sulphuric ..... "	0	0½	0 1	0	0½	0 1
Tartaric crystal .. "	1	3	1 3½	1	2	1 2½
powdered .. "	1	3½	0 0	1	2½	1 3
<b>ANTIMONY</b> ore.....per ton	280	0	0 0	220	0	0 0
crude ..per cwt	23	0	0 0	22	0	23 0
regulus .. "	43	0	0 0	34	0	0 0
star .. "	42	0	0 0	34	0	35 0
<b>ARSENIC</b> , lump..... "	16	0	16 6	16	0	16 6
powder..... "	7	6	8 0	7	6	7 9
<b>ASHES (see Salts)</b> .....						
BRIMSTONE, rough ..per ton	132	6	132 6	132	6	135 0
roll ..per cwt	10	3	10 6	10	3	10 6
flour..... "	14	0	14 6	14	0	14 6
<b>IODINE</b> , dry .....per oz.	0	9½	0 10	0	9½	0 0½
<b>IVORY BLACK</b> , dry.....per cwt.	0	0	0 0	8	0	0 0
<b>MAGNESIA</b> , calcined.....per lb.	1	6	1 8	1	6	1 8
<b>MERCURY</b> ..... per bottle	137	0	0 0	137	6	0 0
<b>MINIUM</b> , red .....per cwt.	21	0	0 0	21	6	22 0
orange .. "	32	6	33 6	33	6	0 0
<b>PRECIPITATE</b> , red ..per lb.	2	6	0 0	2	5	2 6
white .. "	2	5	0 0	2	5	0 6
<b>PRUSSIAN BLUE</b> .. "	1	0	1 10	1	0	1 10
<b>SALTS—</b>						
Alum .....per ton	150	0	155 0	150	0	155 0
powder .. "	170	0	175 0	170	0	175 0
<b>Ammonia:</b>						
Carbonate .....per lb.	0	5	0 5½	0	5	0 5½
Hydrochlorate, crude,						
white..... per ton	420	0	500 0	400	0	500 0
British (see Sal Ammoniac)						
<b>Muriate (see Hydrochlorate)</b>						
Sulphate .....per ton	280	0	300 0	240	0	250 0
<b>Argol</b> , Cape.....per cwt	65	0	75 0	65	0	77 6
France .. "	48	0	70 0	53	0	75 0
Oporto, red .. "	25	0	28 0	30	0	0 0
Sicily .. "	50	0	55 0	60	0	65 0
Naples, white .. "	60	0	70 0	60	0	71 0
Florence, white .. "	75	0	80 0	80	0	85 0
" red .. "	65	0	70 0	70	0	75 0
Bologna, white .. "	78	0	80 0	80	0	82 0
<b>Ashes (see Potash and Soda)</b>						
Bleaching powd.....per cwt.	11	0	11 3	14	3	0 0
Borax, crude .. "	25	0	40 0	52	6	62 6
(Tincal) .. "	30	0	45 0	47	6	60 0
British refined .. "	51	0	0 0	70	0	0 0
<b>Calomel</b> .....per lb.	2	5	0 0	2	5	0 0
<b>Copper:</b>						
Sulphate .....per cwt.	24	0	25 0	25	0	26 0
Copperas, green ..per cwt.	55	0	60 0	55	0	57 0
Corrosive Sublimat.....p.lb.	1	11	0 0	1	11	0 0
<b>Cr. Tartar</b> , French, p. cwt.	84	0	85 0	84	0	0 0
Vegetian grey .. "	67	6	70 0	75	0	0 0
brown .. "	57	0	62 6	70	0	72 0
<b>Epsom Salts</b> .....per cwt.	8	6	8 6	8	6	9 0
<b>Glauber Salts</b> .. "	5	6	6 0	5	6	6 0
<b>Lime:</b>						
Acetate, white, per cwt.	13	0	21 6	10	0	18 0
<b>Magnesia:</b>						
Carbonate..... "	42	6	0 0	42	6	45 0
<b>Potash:</b>						
Bichromate .....per lb.	0	5	0 0	0	5	0 5½
<b>Carbonate:</b>						
Potashes, Canada, 1st						
sort .....per cwt.	31	0	31 6	32	6	0 0
Pearlashes, Canada, 1st						
sort .....per cwt.	83	0	33 6	45	0	0 0
Chlorate .....per lb.	1	1½	1 2	1	0½	1 0½
Hydriodate (see Potassium, Iodide)						
<b>Muriate (see Potassium, Chloride)</b>						
Frussiate .....per lb.	1	0	1 0½	1	0½	1 0
red .. "	1	9½	1 10	1	0½	1 10
<b>Tartrate (see Argol and Cream of Tartar)</b>						
<b>Potassium:</b>						
Chloride .....per cwt.	8	3	8 6	8	0	8 6
Iodide .....per lb.	11	6	12 0	12	6	0 0
<b>Quinine:</b>						
Sulphate, British, in						
bottles .....per oz.	4	9	0 0	4	9	0 0
Sulphate, French .. "	4	3	4 4	4	4	0 0
Sal Acetate .....per lb.	0	10½	0 0	1	0	0 0
Sal Ammoniac, Brit. cwt.	33	0	35 0	33	0	25 0
<b>Saltpetre:</b>						
Bengal, 6 per cent. or						
under .....per cwt.	19	3	10 6	18	0	18 6
Bengal, over 6 per cent.						
per cwt.	18	0	19 0	17	0	17 6
Madras..... "	17	6	18 6	16	6	17 6

	1868.			1867.		
	s.	d.	to	s.	d.	to
<b>Saltpetre, continued:—</b>						
Bomb. & Kurrachee p. ct.	0	0	0 0	14	0	16 0
European..... "	0	0	0 0	21	6	22 0
British, refined .. "	22	6	23 6	22	0	23 0
<b>Soda:</b>						
Bicarbonate.... "	12	6	12 0	16	6	1 0
<b>Carbonte:</b>						
Soda Ash.....per deg.	0	2	0 2½	0	2½	0 2½
Soda Crystals per ton.	92	6	0 0	107	6	110 0
Hyposulphite.....per cwt.	22	0	0 0	20	0	0 0
Nitrate..... "	13	8	13 9	11	0	18 0
<b>SUGAR OF LEAD</b> , White, cwt.	37	6	38 0	37	6	38 0
Brown .. "	27	0	28 0	28	0	29 0
<b>SULPHUR (see Brimstone)</b>						
VERDIGRIS ..... per lb.	0	11	1 0	0	11	1 0
VERMILION, English.....per lb.	2	0	3 0	2	9	3 2
Cbinn..... "	3	0	0 0	2	5	2 6
<b>DRUGS.</b>						
ALOE, Hepatic.....per cwt.	100	0	130 0	80	0	130 0
Scottrius .. "	170	0	300 0	180	0	300 0
Cape, good .. "	29	0	30 0	30	0	33 0
Inferior .. "	13	0	29 0	17	0	29 0
Barbadoes .. "	75	0	210 0	80	0	260 0
<b>AMBERGRIS</b> , grey .....per oz.	32	0	35 0	35	0	40 0
<b>BALSAMS—</b>						
Canada ..... per lb.	1	5	0 0	1	4	1 5
Capivi .. "	1	8½	1 9	1	10	1 11
Peru .. "	0	3	0 0	6	6	6 9
Tolu .. "	2	5	2 6	2	2	2 3
<b>BARKS—</b>						
Canella alba ....per cwt.	30	0	38 0	32	0	33 0
Cascarilla..... "	23	0	33 0	16	0	23 0
Peru, crown & grey per lb.	0	10	1 10	1	4	2 0
Calisaya, flat .. "	2	6	2 8	2	6	2 9
quill .. "	2	3	2 8	2	3	2 6
Cartagena .. "	0	9	1 3	0	10	1 4
Pitayo .. "	0	8	1 3	0	0	1 8
Red .. "	1	6	6 0	2	6	12 0
Buco Leaves .. "	0	2½	0 9	0	2½	0 9
<b>CAMPOR</b> , China.. per cwt.	130	0	132 6	137	0	140 0
Japan .. "	130	0	132 0	137	6	140 0
Refin Eng. per lb.	1	9	0 0	1	11	0 0
<b>CANTHARIDES</b> .. "	2	2	0 0	2	4	2 5
<b>CHAMOMILE FLOWERS</b> p. cwt.	45	0	80 0	50	0	95 0
<b>CASTOREUM</b> ..... per lb.	5	0	32 0	1	0	20 0
<b>DRAGON'S BLOOD</b> , roed p. ct.	190	0	220 0	200	0	220 0
lump .. "	100	0	220 0	90	0	280 0
<b>FRUITS AND SEEDS (see also Seeds and Spices)</b>						
Anise, China Star pr cwt.	85	0	90 0	120	0	0 0
German, &c. .. "	36	0	41 0	30	0	42 0
<b>Beans</b> , Tonquin .. per lb.	1	2	1 6	1	0	1 9
<b>Cardamoms</b> , Malabar						
good .. "	7	0	8 0	6	0	6 9
inferior .. "	5	3	7 0	4	0	5 10
Madras .. "	4	9	8 6	3	9	5 9
Ceylon .. "	2	6	2 10	2	6	3 0
<b>Corozo Nuts</b> ..... per cwt.	12	0	19 0	10	0	16 6
<b>Cassia Fistula</b> ..... "	20	0	30 0	20	0	32 0
<b>Castor Seeds</b> .. "	10	0	12 0	10	0	12 0
<b>Cocculus Indicus</b> .. "	30	0	35 6	30	0	35 0
<b>Colecynt</b> , apple.. per lb.	0	6½	0 10	0	7	0 11
<b>Crotou Seeds</b> .. per cwt.	70	0	105 0	100	0	125 0
<b>Cubebs</b> .. "	40	0	45 0	50	0	52 0
<b>Cummiu</b> ..... "	21	0	30 0	14	0	18 0
<b>Dividivi</b> .. "	11	0	13 0	12	0	13 0
<b>Fenugreek</b> .. "	11	0	12 0	10	0	0 0
<b>Guinea Grains</b> .. "	45	0	46 0	56	0	58 0
<b>Juniper Berries</b> .. "	0	0	10 0	8	6	10 0
<b>Myrobalsans</b> .. "	14	6	10 6	11	0	16 6
<b>Nux Vomica</b> ..... "	21	0	23 6	12	0	13 0
<b>Tamarinds</b> , East India .. "	25	0	31 0	27	0	27 6
West India, new .. "	25	0	35 0	21	0	27 0
<b>Vanilla</b> , large ..... per lb.	9	0	14 0	10	0	16 0
inferior .. "	3	0	3 0	4	0	9 0
Wormseed .. per cwt.	1	6	0 0	5	0	6 0
<b>GINGER</b> , Preserved, in bond						
(duty 1d. per lb.) per lb.	0	8	0 10	1	0	1 1½
<b>GUMS (see separate list)</b>						
<b>HONEY</b> , Narbonne .. "	0	0	0 0	50	0	70 0
Cuba .. "	27	0	36 0	26	0	41 0
Jamaica .. "	26	0	48 0	25	0	55 0
<b>IPÉACUANA</b> .. "	6	3	6 0	0	6	0 0
<b>ISINGLASS</b> , Brazil.. "	2	2	3 9	2	0	3 10
Tongue sort .. "	3	0	4 0	3	0	4 2
East India .. "	2	0	4 0	1	10	4 2
West India .. "	3	5	3 9	8	8	4 0
<b>Russ</b> , long staple .. "	9	0	10 0	9	6	10 6
" leaf .. "	5	6	8 6	7	0	10 0
" Simovia .. "	1	6	2 6	1	9	2 6
<b>JALAP</b> , good .. "	3	0	4 0	4	4	5 0
infer. & stems .. "	0	9	3 6	0	0	3 10
<b>LEMON JUICE</b> .. per degree	0	0½	0 0½	0	0½	0 0½
<b>Liquorice</b> , Spanish per cwt.	65	0	70 0	65	0	75 0
Italian .. "	50	0	60 0	50	0	70 0
<b>MANNA</b> , flaky .. "	3	0	3 6	3	9	4 3
small..... per lb.	1	0	1 9	1	10	2 0
<b>MISK</b> ..... per oz.	19	0	40 0	19	0	32 0
<b>OILS (see also separate List)</b>						
Almond, expressed per lb.	1	7	0 0	1	9	0 0
Castor, 1st pale .. "	0	5½	0 6	0	7	0 7½
second .. "	0	5	0 5½	0	6½	0 7
infer. & dark .. "	0	4½	0 5	0	6	0 6½
Bombay (in casks) .. "	0	4½	0 0	0	9	0 0
<b>Cod Liver</b> .....per gall.	4	6	7 0	3	6	5 6
<b>Crotou</b> .....per oz.	1	2	1 6	1	2	1 6
<b>Essential Oils:</b>						
Almond ..per lb.	38	0	0 0	35	0	0 0



1868.				1867.									
Essential Oils, continued:—				Gums, continued:—									
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.						
Anise-seed ..... per lb.	8 0	to	0 0	11 0	to	0 0	THUS..... "	14 0	to	0 0	15 0	to	17 0
Bay ..... per cwt.	75 0	..	0 0	80 0	..	90 0	TRAGACANTH, leaf..	240 0	..	400 0	220 0	..	230 0
Bergamot ..... per lb.	12 0	..	20 0	10 0	..	10 0	in sorts ..	160 0	..	220 0	80 0	..	295 0
Cajuput, (in bond) peroz.	0 1½	..	0 2	0 2	..	0 2½	OILS.						
Caraway ..... per lb.	5 0	..	6 0	5 0	..	6 0	SEAL, pale..... per tun	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Cassia ..... per lb.	5 9	..	0 0	6 0	..	0 8	yellow to tinged "	36 6	..	0 0	39 0	..	0 0
Cinnamon ..... per oz.	1 0	..	3 6	1 3	..	3 0	brown..... "	33 0	..	35 0	35 0	..	87 4
Cinnamon-leaf ..	0 1½	..	0 2	0 4	..	0 0	SPERM, body ..	05 0	..	0 0	33 0	..	34 0
Citronella ..	0 2½	..	0 2½	0 2½	..	0 0	headmatter ..	0 0	..	0 0	108 0	..	0 0
fine.....	0 3½	..	0 0	0 4½	..	0 0	COD..... "	88 10	..	30 0	106 0	..	0 0
Clove..... per lb.	2 6	..	0 0	2 7	..	0 0	WHALE, South Sea, pale	35 0	..	35 0	39 0	..	0 0
Juniper ..... "	1 9	..	2 0	1 0	..	1 9	yellow ..	34 0	..	0 0	38 0	..	0 0
Lavender..... "	2 9	..	3 0	2 0	..	8 9	brown ..	33 0	..	0 0	37 0	..	0 0
Lemon..... "	4 0	..	5 0	5 0	..	9 6	East India, Fish ..	34 0	..	0 0	85 0	..	0 0
Lemongrass ..... per oz.	0 4½	..	0 4½	0 0	..	0 0	OLIVE, Gallipoli ..	08 0	..	0 0	85 0	..	0 0
Neroli ..... "	0 0	..	0 0	3 0	..	4 0	Tricste ..	07 0	..	0 0	63 0	..	0 0
Nutmeg ..... "	0 3	..	0 8	0 1	..	0 7	Levant ..	02 0	..	0 0	62 0	..	0 0
Orange..... per lb.	5 0	..	7 0	5 0	..	7 6	Mogador..... "	01 0	..	0 0	58 0	..	0 0
Otto of Roses..... per oz.	16 0	..	20 0	17 0	..	21 0	Spanish ..	03 0	..	65 0	57 0	..	0 0
Peppermint:							Sicily ..	06 0	..	0 0	01 0	..	02 0
American ..... per lb.	21 0	..	23 0	22 6	..	23 0	COCOANUT, Cochin. per ton	53 0	..	53 10	60 0	..	0 0
English ..... "	30 0	..	43 0	38 0	..	44 0	Ceylon ..	51 0	..	0 0	51 0	..	56 0
Rosemary ..... "	1 0	..	2 0	1 0	..	2 0	Sydney ..	44 0	..	50 0	49 0	..	0 0
Sassafras ..... "	3 0	..	4 0	3 0	..	3 6	GROUND NUT AND GINGELLY:						
Spearment ..... "	10 0	..	20 0	16 0	..	25 0	Boidbay ..	0 0	..	0 0	50 0	..	0 0
Thyme..... "	1 10	..	4 0	2 0	..	4 0	Madras ..	42 0	..	0 0	54 0	..	55 0
Mace, expressed .. per oz.	0 0½	..	0 2½	0 0	..	0 7	PALM, fine ..	39 10	..	40 0	40 0	..	40 5
OPIMUM, Turkey ..	10 0	..	19 0	10 0	..	17 6	LINSEED ..	32 0	..	32 5	39 0	..	39 5
Egyptian ..	0 0	..	0 0	3 6	..	7 0	RAPESEED, English, pale ..	35 0	..	0 0	39 10	..	0 0
QUASSIA (bitter wood) per ton	105 0	..	0 0	110 0	..	120 0	brown.....	83 15	..	0 0	37 10	..	0 0
RHUBARB, China, good and fine	5 0	..	8 0	0 0	..	10 0	Foreign pale.....	36 0	..	37 0	41 0	..	42 0
Good, mid. to ord. "	1 6	..	4 6	1 9	..	5 0	brown.....	33 16	..	34 0	38 10	..	39 0
Dutch trimmed ..	10 0	..	12 0	10 0	..	12 0	COTTONSEED ..	82 10	..	38 10	31 0	..	38 0
Russian ..... "	0 0	..	10 0	9 0	..	10 0	LARD..... "	65 0	..	67 0	53 0	..	59 0
ROOTS—				TALLOW ..				37 0	..	0 0	36 0	..	38 0
Calumba ..... per cwt.	20 0	..	40 0	20 0	..	35 0	PETROLEUM, Crude ..	11 0	..	0 0	11 0	..	0 0
China ..... "	30 0	..	35 0	20 0	..	80 0	s. d. ..	1 5½	..	0 0	1 1	..	0 0
Galangal ..... "	10 0	..	19 0	13 0	..	14 0	refined, per gall.	1 0	..	0 0	0 7	..	0 9
Gentian ..... "	16 0	..	17 0	16 0	..	0 0	SEEDS.						
Hellebore ..... "	22 0	..	30 0	26 0	..	32 0	CANARY ..... per qr.	50 0	..	03 0	0 0	..	0 0
Orris ..... "	36 0	..	42 0	34 0	..	35 0	CARAWAY, English per cwt.	42 0	..	44 0	0 0	..	0 0
Pellitory ..... "	58 0	..	60 0	58 0	..	60 0	German, &c.....	36 0	..	40 0	40 0	..	44 0
Pink..... per lb.	0 3	..	0 10	10 0	..	11 9	CORIANDER ..	18 0	..	20 0	0 0	..	0 0
Rhatany ..... "	0 6	..	0 10	0 7	..	1 0	HEMP..... per qr.	42 0	..	44 0	44 0	..	40 0
Seneka..... "	1 7	..	0 0	1 9	..	1 10	LINSEED, English per qr.	65 0	..	72 0	0 0	..	0 0
Snake ..... "	1 9	..	0 0	3 0	..	0 0	Black Sea & Azof ..	60 0	..	61 6	64 0	..	0 0
SAFFRON, Spanish ..	30 0	..	35 0	34 0	..	36 0	Calcutta ..	62 6	..	63 0	67 6	..	68 0
SALEP ..... per cwt.	90 0	..	110 0	110 0	..	120 0	Bombay ..	64 0	..	64 6	60 0	..	70 0
SARSAPARILLA, Lima per lb.	0 0	..	0 0	1 0	..	1 4	St. Petersburg ..	61 0	..	59 6	0 0	..	0 0
Pará ..... "	0 0	..	0 0	0 11	..	1 1	Mustard, brown. per bshl.	15 0	..	17 0	0 0	..	0 0
Honduras ..... "	0 10	..	1 4	0 10	..	1 4	white..... "	10 0	..	12 0	0 0	..	0 0
Jamaica ..... "	1 0	..	2 0	1 0	..	2 1	POPPY, East India per qr.	57 0	..	55 0	0 0	..	0 0
SASSAFRAS ..... per cwt.	10 0	..	0 0	8 0	..	9 0	SPICES.						
SCAMMONY, Virgin ..... per lb.	23 0	..	35 0	30 0	..	40 0	CASSIA LIGNEA ..... per cwt.	120 0	..	120 0	103 0	..	111 0
second & ordinary ..	11 0	..	23 0	12 0	..	23 0	Vera ..	60 0	..	84 0	42 0	..	62 0
SENNA, Bombay ....	0 3	..	0 5½	0 2½	..	0 4	Buds ..	140 0	..	155 0	180 0	..	150 0
Tinnivelly ..... "	0 2½	..	0 10	0 2½	..	0 9	CINNAMON, Ceylon,						
Alexandria ..... "	0 5½	..	0 11½	0 5	..	0 10	1st quality ..... per lb.	1 11	..	2 8	2 0	..	2 11
SPERMACEI, refined..	1 6	..	0 0	1 2	..	0 0	2nd do. ....	1 3	..	2 6	1 7	..	2 8
American ..... "	1 5	..	0 0	1 1	..	0 0	3rd do. ....	1 4	..	2 3	1 4	..	2 3
SQUILL..... "	0 1	..	0 2	0 2½	..	0 3½	Tellicherry ..	1 9	..	2 2	1 7	..	1 11
GUMS.				CLOVES, Penang ..				0 9	..	0 10	0 11	..	1 1
AMMONIAC, drop .. per cwt.	200 0	..	260 0	160 0	..	220 0	Ambeyna..... "	0 4½	..	0 5½	0 5½	..	0 0
lump ..	120 0	..	160 0	100 0	..	170 0	Zanzibar ..	0 3½	..	0 4	0 3½	..	0 ½
ANIMI, fine washed ..	210 0	..	230 0	210 0	..	220 0	GINSENG, Jam. fine per cwt.	90 0	..	150 0	120 0	..	180 0
boldscraped ..	190 0	..	215 0	150 0	..	200 0	Ord. to good ..	36 0	..	80 0	42 0	..	110 0
sorts ..... "	105 0	..	185 0	100 0	..	147 0	African..... "	27 6	..	29 0	28 6	..	29 0
dark ..... "	70 0	..	100 0	72 0	..	100 0	Bengal ..	23 0	..	23 0	27 0	..	27 6
ARABIC, E. I., fine							Malabar ..	30 0	..	83 0	23 0	..	0 0
pale picked ..	30 0	..	85 0	85 0	..	90 0	Cochin ..	42 0	..	116 0	58 0	..	120 0
sorts, gd. to fin ..	02 0	..	78 0	73 0	..	84 0	PEPPER, Blk. Malabar, perlb.	0 4½	..	0 5	0 4	..	1 6
garblings ..	45 0	..	0 0	60 0	..	70 0	White, Tellicherry ..	0 9	..	1 9½	0 9	..	0 0
TURKEY, pick. gd to fin.	170 0	..	210 0	190 0	..	225 0	Cayenne ..	0 4	..	0 9	0 4½	..	0 9
second & inf. ..	85 0	..	160 0	85 0	..	170 0	VARIOUS PRODUCTS.						
in sorts ..	63 0	..	84 0	70 0	..	90 0	COCHINEAL—						
Gedda..... "	47 0	..	57 0	55 0	..	0 0	Honduras, black .. per lb.	3 3	..	4 0	8 3	..	4 4
BARBARY, white ..	70 0	..	80 0	82 6	..	0 0	pasty ..	3 0	..	3 8	3 3	..	3 10
brown ..	75 0	..	80 0	85 0	..	0 0	silver ..	1 10	..	2 10	2 8	..	3 2
AUSTRALIAN ..... "	36 0	..	50 0	65 0	..	78 0	Mexican, black ....	3 3	..	3 0	3 5	..	3 9
ASSAFETIDA, com. to gd ..	55 0	..	90 0	50 0	..	90 0	silver ..	3 1	..	3 2	3 4	..	0 0
BENJAMIN, 1st qual. ..	500 0	..	600 0	500 0	..	600 0	Teneriffe, black....	3 5	..	4 5	8 3	..	4 7
2nd ..	380 0	..	480 0	260 0	..	500 0	silver..... "	2 3	..	3 8	3 4	..	3 7
3rd ..	110 0	..	360 0	100 0	..	300 0	GLUE, Town..... per cwt.	40 0	..	60 0	42 0	..	62 0
COPAL, Angola, red ..	60 0	..	70 0	66 0	..	70 0	French..... "	52 0	..	62 0	52 0	..	64 0
Benguela ..	70 0	..	84 0	62 6	..	75 0	GUANO—						
Sierra Leone. per lb.	0 7½	..	1 8	0 4½	..	1 0	African, &c..... per ton.	70 0	..	110 0	70 0	..	110 0
Manilla ..... per cwt.	28 0	..	45 0	22 6	..	45 0	Peruvian ..	0 0	..	0 0	240 0	..	0 0
DAMMAR, pale ..	85 0	..	91 0	65 0	..	75 0	LAC, SHELLAC, orange p. cwt.	80 0	..	92 0	76 0	..	89 0
EUPHORBUM ..... "	13 0	..	19 0	17 0	..	19 0	Liver & nat. orange ..	60 0	..	78 0	52 6	..	76 0
GALBANUM ..... "	240 0	..	280 0	240 0	..	280 0	Garnet..... "	55 6	..	62 0	52 6	..	60 0
GAMBOGE, pckd pipe ..	260 0	..	290 0	380 0	..	420 0	Button, dark to mid.	09 0	..	87 6	60 0	..	77 6
in sorts.....	200 0	..	240 0	220 2									